The Builder.

No. CCCLXXVII.

SATURDAY, APRIL 27, 1850.

THERE are two or three matters that we find it necessary to mention, and as we have left ourselves little space, we must throw them together with more regard to brevity and the information of our readers than connection of the subjects. And touching this same *brevity*, we would urge upon some of our correspondents its great virtue and importance. The subject which occupies a writer's own mind is usually particularly interesting to him, and he would not much object if our number for that week contained nothing else. Our readers generally, however, would think very differently, and we must of course consider them. Above all things we say to our correspondents, be brief: give us facts, argument, illustrations, tersely,—but avoid verbiage and long stories, which interest only yourselves. Another thing to be noted is, that there is no occasion to abuse a man because he has the misfortune to think differently from you,—he is not necessarily an infidel or a swindler, and it is quite possible that you may change your own opinion before you die, and remain just as honest a man as you are now. A number of letters in connection with the interesting and important controversy now going on in our pages were inadmissible on this account. The question is artistic, not personal, and in no other way can it be discussed in THE BUILDER. There is bad feeling enough in the world without opening fresh sources unnecessarily.

In some cases personal reflections cannot be avoided; but even then they should be tempered by consideration and charity. And now for a case somewhat in point.

In our notice of the competition designs for baths and washhouses at Greenwich,* we expressed two opinions;—first, that we did not suppose the selected design could be carried out for the sum stipulated, viz., 5,000*l.*; and, secondly, that a set marked *Pro Bono Publico* was well arranged, and had a satisfactory aspect of completeness. We further mentioned that Mr. W. Smith, of Greenwich, had been employed professionally to assist in the selection.

Since then the referee has forwarded to us a copy of his report and the correspondence on the subject, in order that we might refute certain "unfounded reports that are being industriously circulated relative to his selection of the design for the proposed building."

It appears, although we were not aware of it at the time, that he, in his report, pointed out the set marked *Pro Bono Publico* (in red ink) as the only one he could recommend in which the instructions had been complied with. The report said the set marked "Junius" and another set marked *Pro Bono Publico*† (in black ink) had points of greater merit than the first named, but as their stated cost exceeded the stipulated sum, he did not consider himself justified in recommending either of them for adoption.*

The commissioners, however, selected the set marked "Junius," found to be by Mr. Ritchie. To refute an imputation of personal connection with the author of the plans the referee had recommended, he advertised in our journal for the name of the author, and found the design was the production of Messrs. F. and H. Francis.

It is scarcely necessary for us to say that the course he took of rejecting those designs which were not prepared in accordance with the instructions, was the only one he could adopt with justice. Whether or not the selected set cannot after all be executed for the money,—whether or not the design pointed out by him *could*, we need not now inquire: the correctness of the principle is unquestionable.

We are glad to find that the Architectural Institute for Scotland (see advertisement), to which we alluded a short time ago, is now in shape. We cordially wish it success. We understand that it has been formed on a popular basis, the architects of Edinburgh not being sufficiently united at this moment, if numerous enough, to establish such an institution, and it will now be the duty of the council to consider how a professional *status* is to be conferred, compatibly with the popular constitution of the Institute.

The subjects which are intended to fall under the consideration of the Institute embrace "everything pertaining to the history, principles, and practice of architecture; as, for example, its rise and development in ancient and mediæval times,—the facilities presented by the architecture of these times for re-combination and modern adaptation,—the exposition and illustration of the æsthetical laws which govern architecture as a fine art, and of the mechanical laws which govern it as a constructive art,—and its various resources and appliances as a branch of social economics."

The Institute will carry out its object by meetings for the reading of papers and discussion on subjects connected with architecture, by corresponding with architects and men of science at home and abroad, and by the publication of its proceedings. It will also have in view the collection of models and designs; the establishment of a library, reading-room, and museum; the endowment of a chair of architecture; and the encouragement of pupils of merit at the various Scottish schools of art.

About one-half of the architects in Edinburgh have already become members of the Institute.

Some of the leading architects maintain at present an apathetic neutrality. It is to be hoped, however, that when they see the success which has attended the Institute in other quarters, and the zeal which is thus indicated as existing among the non-professional classes for the advancement of the study of architecture and the elevation of the status of the profession itself in Scotland, they will yet give the benefit of their names and of their experience, and merge all professional jealousies and dislikes in the desire to promote the noble art which they profess.

We hear that the first donation to the library of the Scotch Institute was a complete set of "THE BUILDER." We shall take upon ourselves to add to this by presenting weekly the current number of our journal.

Apropos of the encouragement of pupils, the letter of "C. J. N.," in our last number but one, has not satisfied our pupil friends. "T. and C." have forwarded a reply, in which they refuse to admit "that the circumstance of its not being usual for architects to instruct their pupils is a sufficient reason for retaining the custom. That neglect on the part of masters," they say, "is the 'abominable system' which we call upon you to assist in abolishing. With respect to 'the contracting of bad habits,' it is doubtful whether the fault be always on the pupil's side. If 'C. J. N.' has studied Locke as deeply as he would have us believe, he will know that 'labour for labour's sake is against nature.' When pupils are set to multiply drawings merely to occupy that time which might be so much more profitably employed, either in gaining practical knowledge, or in making themselves acquainted with the numerous beauties of the public buildings of this metropolis (a course of study so strongly recommended by our eminent professor at the academy), it will not be surprising if they become careless and indifferent, not to say disgusted.

"We quite agree with the quotation with which your correspondent concludes, that 'practice must settle the habit of doing:' this contains the pith of our letter, wherein we confessed our ignorance of, and complained of the want of opportunity of seeing, the *practical* part of our profession, and in which we endeavoured to show the uselessness of theory without the aid of practice. We will, in conclusion, ask 'C. J. N.' to take *another* dip into the 'Conduct of the Understanding,' when he will learn that 'those who have particular callings ought to understand them;' and that 'it is practice alone that brings the powers of the mind to perfection.'"

There is much truth in the complaints of architects' pupils, and at the same time great force in the sensible letter by "C. J. N." We most earnestly deprecate the Pecksniffian practice pursued by some practitioners, and the thoughtlessness of others, which leads them not to give their pupils opportunities of improvement to which they are justly entitled. We must, nevertheless, urge on students the necessity of self exertion, and caution them against expecting too much. We may, perhaps, find an opportunity to return to the subject.

Through expecting too much, the workmen of the metropolis had nearly lost the advantage which we feel assured they will derive from the new "Building and Engineering Operatives' Association." The project, however, is now we believe safe, although in a more positively "benevolent" shape than was at first contemplated. A meeting was held at Exeter Hall on the 23rd, Mr. Cockerell, R.A., in the chair, when a plan was decided on, resolutions forming the society passed, and a committee appointed to carry them out.

Mr. Brunel, Sir Harry Chester, Mr. Donaldson, Mr. Baker, and others, moved the resolutions; Mr. W. Cubitt, M.P., accepted the office of treasurer, and several large subscriptions were announced.

Means of obtaining the details of the scheme will of course be speedily afforded, and should receive the serious attention of all our readers.

LORD ROSSE'S SOIREE.—Lord Rosse gave his first *soirée* to the Fellows of the Royal Society, and persons distinguished by knowledge or position, on Saturday evening, the 20th.

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* See page 164, *ante*.

† Why do competitors adopt mottoes so hackneyed that they no longer serve as distinctions?

* According to the instructions issued to architects, "the cost for executing the several works required for the whole establishment and fittings complete, in accordance with the designs, is limited to 5,000*l.*, *including the architect's commission, his travelling expenses, and all incidental charges*; and each person sending in designs is to be prepared (if called upon) to provide competent persons to contract for and execute the whole of such works in an *efficient* manner for the sum or sums to be stated in his specification or estimate."

POSITION OF THE ROYAL ACADEMY.

FOREIGN ACADEMIES OF ART.

OWING to the extensive influence exercised by the Royal Academy on the public taste, the question which has lately arisen relative to the continuance of the grant of a building, cannot but awaken a lively interest even on the part of those votaries of the fine arts who are unconnected with this national institution. It is as one of these that I offer a few remarks, bearing chiefly on the institutions of a similar nature on the continent, whose prosperous condition, founded on the support of their respective Governments, militates strongly in favour of the like system of patronage in this country. In Germany, France, and Italy, we find academies established in all the principal towns, under the immediate control and support of Government. Prussia, in addition to the Academy at Berlin, has that of Düsseldorf, the fame of which justly extends over all Europe, and which, besides other advantages, receives from the Crown the spacious accommodation which is afforded by the old palace. The Berlin Academy is not only provided with a suitable building, but is also maintained by Government, the expenses being, however, partly defrayed by the profits of the annual exhibition, and by a slight charge made for the tuition given to the pupils. The salary of the professors is handsome, amounting to 600 thalers, or about 80*l*., which is equal to double that amount in England. Their appointments are permanent, and unaffected by any falling off in the number of the pupils, or other changes in the schools; and the instructions which they give comprise all the principal branches of art, including landscape, and what is termed *genre*, or subjects from familiar life; besides which, large prizes are awarded for the best productions of the pupils. In Paris, the "Académie des Beaux Arts" appears to be established on a still more liberal footing, the instructions being gratuitous, and delivered by the first professors in a handsome and appropriate building, whilst the most successful students in each of the four principal branches of art are rewarded by being maintained for a certain period, at the expense of Government, at Rome, where France can boast of another academy, organized for this purpose, under the direction of one of her most eminent artists.

In Austria the establishment of academies of the fine arts, under the auspices of the imperial crown, extends even to the subordinate towns of Venice and Milan, in both of which, especially in the latter, a large number of pupils are gratuitously instructed in the various branches of art by the most skilled professors; all that is necessary for their perfect instruction being most liberally provided. The minds of the youths here receive the additional training which is derived from the study of the works of the best ancient masters, assembled under the same roof as the elementary schools.

Owing to latent causes, perhaps connected with the present political and social condition of Italy, the academies of painting in that country have not realized the fruits which might be expected to result from the possession of such treasures of art. That these failures are not the necessary consequence of a position dependent on Government, is sufficiently proved by the glorious results which have attended the foundation of academies, under royal patronage, at Düsseldorf and Munich. Works of so elevated a character as those which have been produced by the modern historical schools of painting in Germany could emanate from no source which is not purified and ennobled by the tutelary guardianship of sovereign protection. Art, like every true offspring of genius, is aspiring in its nature, and requires the aid of a supreme hand to raise its votaries to the highest station. Pecuniary remuneration may be awarded to talent and industry by private individuals; and this kind of stimulus, it cannot be denied, prevails to a large extent in this country. But when the necessaries of life have been provided for, that honorary distinction is aimed at whose tabernacle is raised under the fostering shadow of royalty. Nor does art require the prestige only which is derived from the crown: the ideas expand with the space which is allowed for the designs which they suggest, and the vast halls and extensive walls of palaces present the most effectual means for promoting the grand and the sublime in each style of art.

Such considerations as these afford sound and substantial grounds why an academy should be established under royal patronage, on a comprehensive and generalizing principle. With regard to the appropriation of a building for the use of the Royal Academy, this advantage, conceded at the period of its foundation, may be considered rather as an act of munificence on the part of the sovereign than as founded on any legal claim. But should we on this account entertain misgivings as to the present right of possession, seek a flaw in the title, or admit it only with a frown? The first planning of an institution involves an amount of difficulty, and requires a degree of energy and confidence, which, when this first trial has been made, are not necessary for the successive establishment of others on a similar footing. If the unusual amount of enterprise which presided at the foundation of the Royal Academy merited especial encouragement and support, why should it lose, or even weaken these claims, by a long period of successful, and—I believe, generally admitted—as most usefulexertions?

We cannot but suppose that the most talented and persevering members of other less important academies of the fine arts, would behold with regret any change with reference to the Royal Academy which might tend to lower its position: all must feel, more or less, that an institution is wanted at the head of the hierarchy of art, to which other more humble societies may serve to prepare the way by successive and graduated stages. If no distinction be made, or exclusion exercised, with regard to the honours conferred by the bead academy, there is no reason why the members of the other institutions, having before them the same prospects as artists at large, should not look up to the Royal and leading one as the necessary complement to their own, and have nothing more at heart than its success, influence, and aggrandizement.

We have followed with advantage the examples afforded by the continent with regard to the manner in which most of our national institutions have been thrown open to the public: also with regard to the decoration of our national buildings there has been a noble commencement, creditable to the first attempts of British art. If we would carry out still further the principle so advantageously adopted by foreign nations, of rendering painting, historical painting at least, truly national, we must extend rather than restrict the advantages which our academy enjoys. At present the privileges of the Crown connected with the Royal Academy appear to be chiefly those of confirming the diplomas granted to the Royal Academicians, and of sanctioning the appointment of the professors and officers,—a reservation which is just sufficient to reflect the splendour of royalty on this institution, without lessening the strength and stability which may be considered to result from an independent position. Whether the control exercised by Government over its affairs should be increased in proportion to the extension of its privileges, remains to be considered by those who have an intimate knowledge of the internal management of the Academy. It will, however, scarcely be denied that the present results of this management are fully commensurate with its resources, if it be considered that nearly 200 pupils are gratuitously instructed in the leading branches of art, that they derive the inducement to study which is afforded by gold and silver medals, and, occasionally, the additional encouragement of a free journey to Rome, granted to the most successful competitors. Whereas, these and other advantages, such as lectures, &c., are almost entirely defrayed out of the scanty means which are supplied by the annual exhibition.

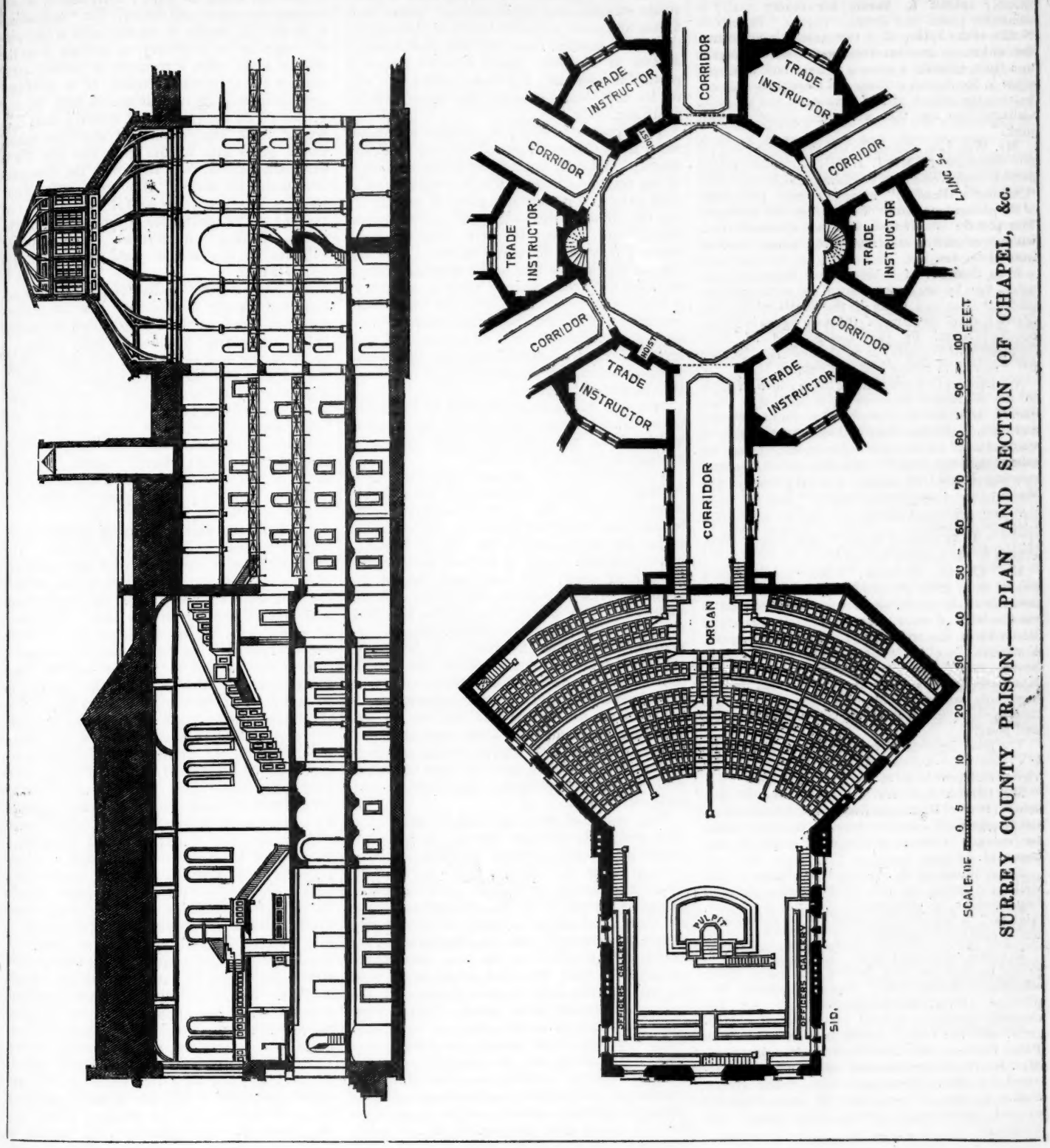
It is with regard to this last department only, that the Royal Academy may be said to enjoy a practical superiority over other institutions devoted to the fine arts, resulting from the accommodation which is afforded in a national building. We do not doubt that any extension of this privilege would be followed by a corresponding diffusion of its advantages, and thus give to the operations of the academy an appearance of increased liberality in the eyes of artists at large. For however excellent the intentions of those on whom rest the onerous task of admitting and rejecting works of art, and however fair and impartial the rules which are laid down for the performance of this duty, requiring that the fate of every production should be decided anonymously, the large number which, for want of room, are compelled either to be rejected or misplaced, must necessarily remain a cause of dissatisfaction as long as there exists so palpable a disproportion between the number of pictures to be located and the means of disposing of them in a suitable manner. In the exhibition of the German academies, the works of French and other foreign artists are seen to occupy the best positions, beside the productions of the professors of these academies. The satisfactory developement which in this country manifests itself of a kindly international spirit, makes us look forward to the time when, with increased means, we shall be able to respond more liberally to the appeal made by foreign industry to this large and influential community of art, and when we shall yield to none of the continental states in that courtesy and deference which are especially due to foreigners. H. TWINING.

PURIFICATION OF DWELLINGS.

IN THE BUILDER of last Saturday there are some very pertinent remarks on the effluvia around farmyards and cottages, concluding with a hint as to emanations of the water-closet. Last October I addressed a letter to the Board of Health—when the plan of house visitation was in full operation—with a suggestion that a *cesspool visitation* might be attended with fully as much benefit. The connection between the cholera and the accumulation of those impurities which daily ought to be removed has been so amply demonstrated, that we need bring forward no additional proof thereof. I beg, then, to recommend to the public that during the approaching summer and autumn particular attention be paid to the daily cleansing of these most attractive sources of the cholera poison. The disinfection of these places all throughout the densely inhabited metropolis can be efficiently secured by the weekly application of the chloride of lime and whitewashing. This may be acomplished at a very trifling expense indeed, and though I am not quack enough to guarantee the non-appearance of the cholera by this mode of purification, I judge that a most important step will be gained thereby in securing the inhabitants from foul smells, at least, with probably a diminution of the number of low fevers which seem to be on the increase; and, assuredly, with the positive certainty of a less impure atmosphere than heretofore has been the lot of London. Whatever can subtract in any degree from the atmospheric impurity, *pro tanto* diminishes the virulence of every form of epidemic and endemic disorder; and this we conceive to be the proper time to put in active execution all the subordinate means we have at command to mitigate the severities of endemic disease. The intrinsic nature of cholera it would be out of place to inquire into here, but its immediate relationship with all organic decomposing impurities is contested by none. That the principle should be successful, it should be carried on throughout every street, close lane, and alley simultaneously; and as it is likely it will be some time ere an efficient system of sewerage can be put in active practice, this temporary expedient cannot, I think, with safety be neglected.

WILLIAM REID, M.D.

NEW PLANING MACHINE.—Mr. W. E. Newton, of Chancery-lane, has patented a planing machine, with two carrier wheels, and an endless band of metal plates hinged together and fluted, the whole driven by bands and toothed gearing from any prime mover. The plank is introduced between the fluted surfaces of the two bands. The planes, eight in number, are adjusted at different angles to the plank by means of screws, and a bar presses on the plank by means of a spring. Both sides may be planed at same time by a second set of planes beyond the first.



SURREY COUNTY PRISON.—PLAN AND SECTION OF CHAPEL, &c.

NEW SURREY COUNTY PRISON.

We add to our illustrations of last week a plan of the chapel and central hall, and a section of the same part of the building. The chapel has 394 separate stalls.

THE NEW SOCIETY OF PAINTERS IN WATER COLOURS.

This, we learn from the catalogue, is their sixteenth anniversary, and we cannot but congratulate the institution both on the steady progression of the established members and the excellence of their lately chosen auxiliaries.

(225) "A Sebeel, or Public Reservoir, for the gratuitous Supply of Water," is a theme of which Mr. Hague has been enabled to make much. A variety of figures, in eastern habiliments, are so disposed as to constitute a masterly *agroupement;* some too far depressed by drought to avail themselves of the assuaging draught, others partaking with an eagerness not to be easily understood by the well-circumstanced wine-drinking northern and southern. The old pilgrim gratefully receiving from the hands of a charitable woman the welcome cup, too infirm to lift it to his lips, and a Bedouin-Arabic figure, who has satisfied his thirst, and is evidently thinking of something removed from kindly purposes, are admirable impersonations of character: there is a certain air about the picture reminding one of the French school, especially Leopold Robert, and Paul de la Roche, which, perhaps, is only attributable to the subject; at all events, it does not deteriorate from the excellence of this valuable production. (39) "Miseries of War," and (52) "A Guard Room," in the same artist's more recognized style of Dutch depiction, are profuse in the rich qualified colour and low tones so remarkable in this artist, although light and air are never sacrificed at their expense.

Mr. Wehnert is amongst the painters who read and think, and never produces anything to which he is at a loss to find a title,—one of those whose subjects (though not always new) are wrought with a zeal commensurate with his abilities. (193), "Caxton reading the first Proof-sheet from his Printing-press in Westminster Abbey, March, 1474," has furnished him matter for an admirable instance. The severe style of the Early Germans has always more or less influenced his conceptions from the commencement of his career; and, if amenable to the tax of "mannerism" (moulded from highly authoritative models as it is), it is not trite plagiarism, but a praiseworthy intention of treading in the path cut out by predecessors towards the unexplored regions of perfection. Caxton is seated amidst disciples, calmly perusing the sheet fresh from the press; Wynkyn de Worde, Richard Pynson, William Macklinia, Setton, with the rest of his disciples, are anxiously awaiting his remarks, all intent on the momentous experiment, and one is repelling the advances of a waiting-maid laden with refreshment, lest she should disturb his attention: the earnestness with which some are examining the proof, and others the effect it has on their master, is admirably portrayed.

(75) "Christ with the Disciples in the Cornfield," by Mr. Henry Warren, is an important feature in the exhibition; large in drawing, and with beautifully-cast and painted draperies. A certain appearance of haste in the getting up is perhaps observable in this fine embodyment of a beautiful text: the foreground and corn are charmingly rendered.

(65) "Joan of Arc," J. Absolon,—represented in prison musing over her past glories, observing her armour, left by design or accident in her dungeon (so says history), successfully expresses a longing to don the harness once more for the sake of *La belle France:* the doubt with which she contemplates between patriotism and the expediency of devoting herself to religion is happily conveyed.

One of the most versatile of geniuses is Mr. E. H. Corbould: with art requisites, as it were, at his finger ends,—he strives to hide the light of his excellence under the bushel of affectation; but in spite of all the discrepancies of a too fascinating manner, the many fine qualities that characterize his numerous emanations, pronounce him an artist of no mean pretensions. (271), "Elgiva in the hands of the creatures of Odo, Archbishop of Canterbury, is extraordinary in effect and manipulation; full of imaginative and executive beauties. The ruffian who holds the *too* resigned Elgiva

(for, *certes*, no woman would so gracefully and amiably submit to having her beauty spoilt) is admirably posed and drawn. (315), "Floretti de Nerac, at the Spring of la Garenne." A concentration of incongruous excellencies and defects, elegant to a fault, exhibits a charm of line, and a simple grace in the chosen attitude that more than counterbalance the stiffest of stiff petticoats, and the most alabaster-like toes that were ever picked out with pink.

Mr. Wm. Lee, who seems to have adopted a style not dissimilar to Mr. J. J. Jenkins, shows considerable improvement on preceding exhibitions, (86), "Asking a Blessing," manifests great perception of the picturesque nature of every-day-life incidents. The picture is invested with an apparent truth without vulgarity, and refinement widely removed from prettiness.

Miss Setchell, of "Momentous Question" renown, has by no means shown an advance in her (258) "Jesse and Colin:" the effects of the ill-drawing about the arms of the male figure is hardly counterbalanced by the lovely head of Jesse (suggestive of Hogarth) or by the draperies, be they never so rich in colour and well painted.

W. Bennett (a name that has lately added strength to the landscape department) is affixed to some *quarter of a hundred works*, that vie in crispness and natural freshness with the best specimens of water-colour depictions: a charming feeling for sober grey tones is observable, not unlike, in some respects, David Cox. (40) "Harlech Castle, North Wales; (59) "A Road through the Forest;" (82) "Bolton Abbey, Yorkshire;" (120) "Sunset—Clapham Common;" (121) "A Forest Glade;" (170) "A Woodland Scene," and others, bear witness to his industry and ability.

Mr. Charles Davidson, another of nature's pupils, and a strict attendant of the only true school, revels in shady nooks, under leafy canopies: he is the Creswick of water colours. (23) "A Study of Beech Trees, Knowle-park;" (57) "Belton-park, Yorkshire;" (141) "Entrance to Hook-wood, Seven-oaks;" (203) "Near the Duchess's-walk, Knowle-park,"—a composition in which he has been ably assisted by Mr. Harrison Weir,—force themselves upon the attention of all by their truth and power.

The most important contribution of Mr. Penley is a "Sunset,—A Coast Scene" (97), painted with vigour and knowledge of what he was about.

Mr. Carrick describes in a broad masterly way some (104) "Highland Emigrants,—Morning of the Departure," a striking drawing, with nice feeling for colour: another week's work might be well bestowed.

The drawings by Mr. Vacher bear witness to time well spent during his late sojourn, and show great improvement in execution. (44) "The Bazaar, Algiers," is the most important of his exhibitions, and is entitled to admiration.

It would take more room than we can spare to praise in turn, as they deserve, the many clever effusions of Messrs. Fahey, Howse, Hardwick, Maplestone, Oliver, Rowbotham, Weigall, &c., the exquisite specimens of floral painting of Mrs. Margetts, and the highly meritorious works of Miss Fanny Corbaux, Miss Jane Egerton, Mrs. Harrison, Mrs. Harris, or the successful bits of nature contributed by Mrs. Oliver and Miss Fanny Steers. Suffice it, then, to say, that all have creditably exerted themselves to render their gallery very attractive.

ON THE GYPSUM FOUND NEAR PARIS, AND ITS APPLICATION AS A PLASTER.*

AMONGST the local advantages enjoyed by our professional brethren of the French capital, that afforded by the unlimited supply of a very superior description of plaster may be ranked as one of the most important. The facilities afforded by the railway and steam-boat transit having at length put us (to a certain extent) upon a footing of equality in this matter with them, it becomes important to examine the nature of the material thus offered for our use.

Regarding plaster mechanically, it may be considered as a species of lime, which is susceptible of being employed without admixture with any other ingredient than water, and of attaining with singular rapidity a moderate degree of hardness. These qualities would render its employment in all cases very desirable, were it of a nature to resist the influence of the atmosphere. But unfortunately it is utterly incapable of resisting the effects of humidity when used alone. * * *

The gypseous deposits near Paris form a very distinct and easily identified group, or sub-division, which comprehends (at the same time as the gypsum) alternating beds of marl, either calcareous or argillaceous. These beds follow an order precisely identical throughout the whole district, from the neighbourhood of Meaux to Meulan. Some beds are absent in particular cantons; but those which are still to be met with occupy the same relative positions.

The gypsum immediately overlies the calcareous beds Cuvier designated as the "calcaire marin;" and their appearance in the landscape of the neighbourhood of Paris is very remarkable, even in a picturesque point of view. They cap the hills of the older and harder formations; and appear to have suffered more severely from the denuding effects of the cataclysms which gave rise to the existing valleys, than the subjacent rocks. They thus form, as it were, a second range of hills (sometimes conical, as at Montmartre, Les Buttes Dorgemont; or elongated, as at Chaumont and Belleville, Triel, &c., superposed on a first series of hills, bearing all the characteristic marks of the calcareous ranges.

We find at Montmartre and at Belleville, where the formation exists in the most perfect development, that there are three masses of gypsum of various thicknesses.

The quality of the gypsum is not the same through the whole thickness of the different masses. Great care is then required in so mixing the different sorts of stone as to secure an uniformity in the plaster obtained by the burning. Some of the beds are reserved for special uses; the hard beds, in the remaining portions, require to be mixed with the softer ones. As might naturally be expected, this variety introduces a complication in the manufacture, which frequently gives rise to improper fabrication, and opens the door to much fraud. Indeed, the fabrication of plaster near Paris, still more in the departments, is liable to all the reproaches that we so unsparingly address to our own cement manufactures. Such must always be the results of unlimited competition, and as long as price is made of more importance than quality such they will remain.

The mode of burning usually adopted is very rude. It consists simply in building, within three walls, covered with a rough fixed roof, a series of arches, 1 foot 8 inches wide by 2 feet 4 inches high, with piers formed of gypseous stones, as are also the arches. These are then filled up to a height of 13 feet with stones, so arranged that the largest are at the bottom, the smallest at the top. The arches are filled in with fire-wood, which is set light to, and the fire kept up so as to maintain the baking for twenty-four hours. The dimensions of these kilns are such as to enable them to hold from seventy to seventy-five tons. In some of the quarries a more rational style of burning is adopted, which consists in passing the already pulverized stone through cylinders, which revolve in an open fire. I have, also, in one of Mr. Weale's treatises, mentioned an application of overheated steam to the same purpose; but the inquiries I made in Paris, about a month since, lead me to believe that it has not yet been fairly tried.

Indeed, there is always a difficulty in introducing any new process in the ordinary arts of life, such, for instance, as the one which meets us on the threshold in the use of the French plaster. Near Paris, the workmen have always been accustomed to employ plaster burnt in immediate contact with the wood. In that process the brees become necessarily mingled with it, and we find now that the men have come to consider the grey colour they communicate as an indication of a superior quality. The Paris workmen, in fact, do precisely the reverse to what our workmen do: upon the same principle, nevertheless, viz.—from an irreflective habit. They dislike a white plaster; we attach far too much importance to it. Truth, as in most cases, lies in the mean. The absence of the brees certainly does not diminish the value of the plaster: the extreme whiteness we contend for in London is for the most part obtained by the use of a softer description of stone, or by the admixture of some extraneous ingredient.

The operation of burning the plaster stone is, after all, only effected for the purpose of dehydrating, or driving off the water of crystallization from the gypsum. Before this is done the stone is hard; afterwards, it becomes pulverulent and floury. The "rationale" of its use is, simply to present such a quantity of water as is necessary to restore it to the original state, when it resumes its natural hardness, with a commencement of a confused crystallization. Now this action may be, and is, carried on irrespective of colour; that is to say, at least, the presence of the wood ashes, which gives rise to the grey tint the Paris workmen require, does not affect the combination with the water. Our own very white plasters owe their beautiful colour to the absence of the carbonates of lime, or the marls, which, in fact, communicate very superior qualities to the stones yielding plaster less purely white.

To secure a good quality of plaster, it is advisable to apply a moderate heat in the beginning, which is to be augmented gradually. When the plaster is not sufficiently burned, it becomes dry and sandy: in this state it does not set with any degree of hardness. When it is overburnt, it also loses its adhesive properties: it ceases to have what the workmen call "de l'amour:" it will not cling to the fingers, nor has it the rich unctuous quality which characterizes the well-burnt plaster. As soon as it is burnt, it should be ground and employed as soon as possible after the manipulation is completed. * * * *

In Paris the mode of using plaster is to employ it pure and free from mixture. The very low price at which it is sold, and the comparatively high price of sand, dispense with the motives of economy which render mixtures almost indispensable in our case. The town of Paris pays, for its municipal works, at the rate of 12s. 9½d. per ton of plaster, whereas it cannot yet be had in London for less than about 40s. per ton. Whilst the practice in France is to use plaster pure, I am disposed to think that the mixture of sand, so far from being prejudical, is even desirable, if confined within reasonable limits. We find that in reassuming the state of hydrated sulphate of lime, the plaster goes through an imperfect crystallization; and this action is accompanied by a singular re-arrangement of the molecules. This causes the plaster to swell when used alone; and to such an extent, that it is impossible even to finish a ceiling close up to a wall at once. Now the introduction of a body so full of inequalities as the coarse, sharp sands, must afford room for the free action of this expansion; and, at the same time, the facettes of the sand must offer, as it were, nuclei, which cannot but be favourable to the crystallization. It is, doubtlessly, on these principles that we can explain the superiority of the plaster containing the wood brees, which does become harder than the purer plasters, if used alone. Too large a proportion of sand should be avoided; but very fair work can be executed even with a mixture in the proportions of two of sand to one of plaster. Under any circumstances, the finishing coat should be pure. Subsequent experience will decide whether the use of two materials of this kind do not expose the work to unequal contractions, likely to cause fissures, or cracks.

The plaster made near Paris sets with a rapidity very much greater than any material we are accustomed to for plastering purposes, and, for very large uniform surfaces, perhaps this is a difficulty. The workmen have not the time to work the floating coats with the mathematical correctness we usually exact in our country. But, to a certain extent, this objection may be obviated by slight differences in the mode of preparing the plaster, or by altering the quantity of water in proportion to the positions in which the material is required to be used. Thus, if all the strength of the plaster is needed, the smallest quantity of water is introduced; about as much in bulk as the plaster itself occupied. This is called, by the workmen "gâcher serre" (stiff guaged). When it is necessary to work and rework the face, as in setting coats, more water is added, or the plaster is said to be "gâché clair" (guaged thin). Habit alone can fix the precise proportions, for it is impossible to arrive constantly at the same results in the burning. For the very finest works, the workmen make what they call a "coulis;" this is run in in a semi-fluid state. Plaster which has been thus treated with an excess of water, does not acquire the tenacity nor the hardness of that

* Part of a paper read at a meeting of the Institute of Architects, 8th April.

treated in such a way as only to present to it the water of crystallization.

The extraordinary forces of adherence, &c., of the Paris plaster, enables the work on ceilings or partitions to be executed with far less expense of lathing than similar works executed with our lime and hair. Rondelet made experiments to ascertain the limit of these forces, and he obtained the following results:—A parallelopipedon of plaster, with a base measuring 1 inch each way, supported a weight of 76 lbs., acting so as to tear it asunder: this he called the force of adhesion. Similar figures resisted a crushing weight of 722 lbs.; so that the ratio of the resistance of plaster to an effort of traction, compared to one of extension, is as 1-9½. * * * *

The usual practice in Paris is to execute the work intended to be plastered with rubble stone, set in plaster mortar. If possible, the principal elevations are executed in ashlar: externally, plaster is never used if it can be avoided, for its use requires care and numerous precautions. Firstly, the plaster coat must be entirely out of the ground; it must be removed from all weatherings, where the capillary action would allow the absorption of water; the upper surfaces must be covered with zinc, or other metal; and, if it be expected to stand for many years, the whole must be painted. When, however, plaster is to be applied on walls, externally or internally, the course followed is to clear out the joints of the masonry, and to wet the surface. Plaster, guaged stiff, is laid on with a broom, or in any similar expeditious manner, and it is brought to a tolerably uniform face by use of the trowel. This is called "faire le crepi," a term equivalent to our "rendering." The floating coat, or "l'enduit," is applied by the trowel, and dressed off with a rule, in somewhat a similar manner to the system followed by our own workmen; but it is in the execution of this work that the greatest difficulty arises, from the rapidity with which the plaster sets. The stuff is guaged thin, but not sufficiently so to allow much manipulation. When the face is floated, as described, the plasterer passes over the surface with a sort of toothed trowel, called "la truelle bretelée;" using, firstly, the toothed side, to remove any asperities, and finishing with the knife edge on the other. A thin setting coat is lastly added, to stop up all the pores or inequalities. The time required to complete such plastering on wall is very short, compared with what we are accustomed to. The floating coat may be applied within four days of the rendering, under favourable conditions, and the whole work easily completed in a week.

Partitions are usually executed in a manner essentially different from our own. A sort of wood framework is made, without much complication of carpentry, by the way,—for the French very wisely prefer a wall where we too often place large trussed partitions. The French partitions rarely consist of more than upright posts, with stouter ones for doorways, and a few discharging braces or horizontal ties. The upright posts, "les poteaux," are spaced about 1 foot 4 inches apart: the door-posts are usually planed so as to form the architraves of the doors,—they are called "les poteaux d'huisserie." Upon the common quarters laths are nailed (mostly of poplar or of fir), which are from 3 inches to 4 inches wide, and spaced about 4½ inches apart. The interior is filled in with old plaster rubble or light stone, and the outer surfaces rendered as for walling. Such partitions answer admirably for the purpose of keeping out sound, and are tolerably light. From the immense quantities of plaster rubble to be met with in Paris, they are also, comparatively speaking, economical. Close lathing is very rarely executed; nor, in fact, do the oak laths used in France allow such work to be well done. Some masons in Paris use a sort of tile, cast beforehand purposely for this use, and made of plaster. This system is not so solid as the usual one of only employing rubble, for the plaster does not adhere so well to the smooth faces of the tiles, but it avoids a very considerable amount of humidity.

Ceilings are executed in several manners.—1. The space between the joists is filled in solid, with plaster, or stone rubble, carried on rather wide laths underneath: the lower surface is then rendered as a wall would be, and a bed is formed on the top to receive the tiles, or sleeper joists and flooring are added. This is said to be "hourdé plein."—2. With close lathing, as in England, "à lattis jointif."—3. The third manner, and the one most usually adopted, because it binds the joists together the most effectually, without loading them unnecessarily, consists in lathing the underside of the joists at distances of about 3½ inches from centre to centre. A species of flat centreing is then placed under them, and a coat of plaster of about 1¼ to 1½ inch is laid over the laths so as to stop against the boards on either side, and between them. The plaster is brought up the sides of the joists, and worked so as to leave a hollow channel. The ceiling itself is then applied below this coat, called an "auget."—4. In the country, again, another manner is used, namely, the joists are left apparent, and only the intermediate spaces are ceiled. If the third manner could be adopted under the requisite conditions of economy, it would be very desirable, for it unites the great advantages of solidity and impermeability to sound, in which respect our newly-built houses leave so much to be desired. * *

Now the proprietors of the French quarries have lately made arrangements by which the real plaster of, and from, Paris may be obtained in London at prices below those of our English plaster. Its use will, I am personally convinced, very soon supersede the barbarous mixtures of lime and hair, and all such trumpery, we have been forced to employ hitherto in its absence. A new application of any material is, however, always exposed to many risks and failures, from ignorance of its qualities, from unskilfulness in the handling, and even from the prejudices of those employed to execute the works. GEO. R. BURNELL.

ARCHITECTURAL PROGRESSION.

I AM not much given to writing in the public journals, and am quite unskilled in controversy, but as I have, in a hasty moment, ventured to push myself into other men's disputes, I may perhaps be excused if I add a few words, merely to avoid the risk of confusing the question I intended to elucidate.

I wish it, then, to be understood, that with me, the question is not one bearing upon *copyism*.* I am as much opposed to that, in the abstract, as any one; nor is it a question as to whether certain principles propounded by your respected correspondent in his first letter were right or wrong. I confess I had then never seen that letter, and I agree with much that it contains, while I dissent from some of its premises, and nearly all of its conclusions: nor is it a question of a personal character, such as whether, on the one hand, the Gothic revivalists are too timid and puerile in their attempts, or, on the other, whether their opponents have once been zealous and humble students of mediæval art, but, on emerging from the *statu pupillari*, have thrown aside at once their zeal and their humility: such questions are of little importance.

The real question is simply this:—As we are called upon to *progress*, and admit the propriety of the call, what is to be the starting point from which our progression is to commence? I do not ask this for my own information, nor for those who hold the same opinions with myself: with us the die is cast, we have chosen our starting point, and shall now probably follow our course, whether right or wrong. I only ask it for the sake of clearing the question of difficulties which may perplex those who have yet to choose.

Your correspondent, in his first letter, has ably and clearly described the condition to which we are reduced through our forefathers having once departed from the progressive course. So far we are entirely agreed, and I am only arguing with those who admit *so much*, not with the Philogrecians, with whom we have nothing in common. The fact, however, remains, however we may deplore it, and through it we are now left without a style of our own. We see that no progression has hitherto taken place without some groundwork to go upon, but we feel that we have none of our own, owing to our having once wandered from the direct course of progression. We hold it to be most reasonable, under such circumstances, at once to return to the old path, and in that path to progress as vigorously as we are able. I have, in my hasty letter and elsewhere, given my own reasons for such a choice, and as our opponents assume a position of conscious superiority, the least we can expect is a clear statement of *their* choice and *their* reasons. All we at present know is, that they have decided that we are *wrong*, but this decision will produce only perplexity unless they tell us clearly and specifically what is *right*.

If we are to progress, it is clear that we must have a common starting point, or our progression will not be in common, and can lead to no unity of result. The Gothic revivalists are the only parties who have even attempted to agree on such a point; yet we are the selected objects of the attacks of those who have, so far as we can see, made no such attempt. We may have made a very foolish choice, but so far as we can discover, our opponents have made none. They say they were once precisely where we are now; but they gave no practical proofs of it: they assert that they are now far in advance of such a position, yet we look in vain for any result of their advance. We, at the least, show our sincerity by the practical carrying out of what we urge, be our works never so puerile; but when we ask for the practical working out of what our opponents are so loud in urging, the result is absolutely *nil*,—a *perfect blank*. The revival which we press for, imperfect as it is and feebly as we have attempted it, is yet *the* great architectural fact of the age; it may be a very lamentable fact, but still it is *the* fact; while if we call for facts from our opponents, we have, as Mr. Pugin says, the "*vox*" (in abundance) but "*præterea nihil*."

It is but fair that we should see the carrying out of their principles, and that the public should judge between us, not by what we *say*, but by what we *do*. Till I see something of this I shall trouble you no more on the subject, but, in the meantime, urge upon those students who are disposed to go with us not to be discouraged or perplexed by such questions, but to press earnestly forward: a glorious field lies before them. We are, in fact, but the pioneers: to them may be reserved the perfect carrying out of what we are now labouring for, though they will fail if they attempt it without first laying as a foundation, a perfect knowledge of those glorious remnants of Christian art which we select as the groundwork on which our progression is to be founded.

GEO. GILBERT SCOTT.

* I may here mention that the title given to my letter was not my own, and that I had throughout used the full name of your correspondent, instead of his initials, not having indeed seen the letter in which the initials alone were given. I only mention this to avoid apparent inconsistency.

EARLY DOCUMENTS CONCERNING WORKMEN.

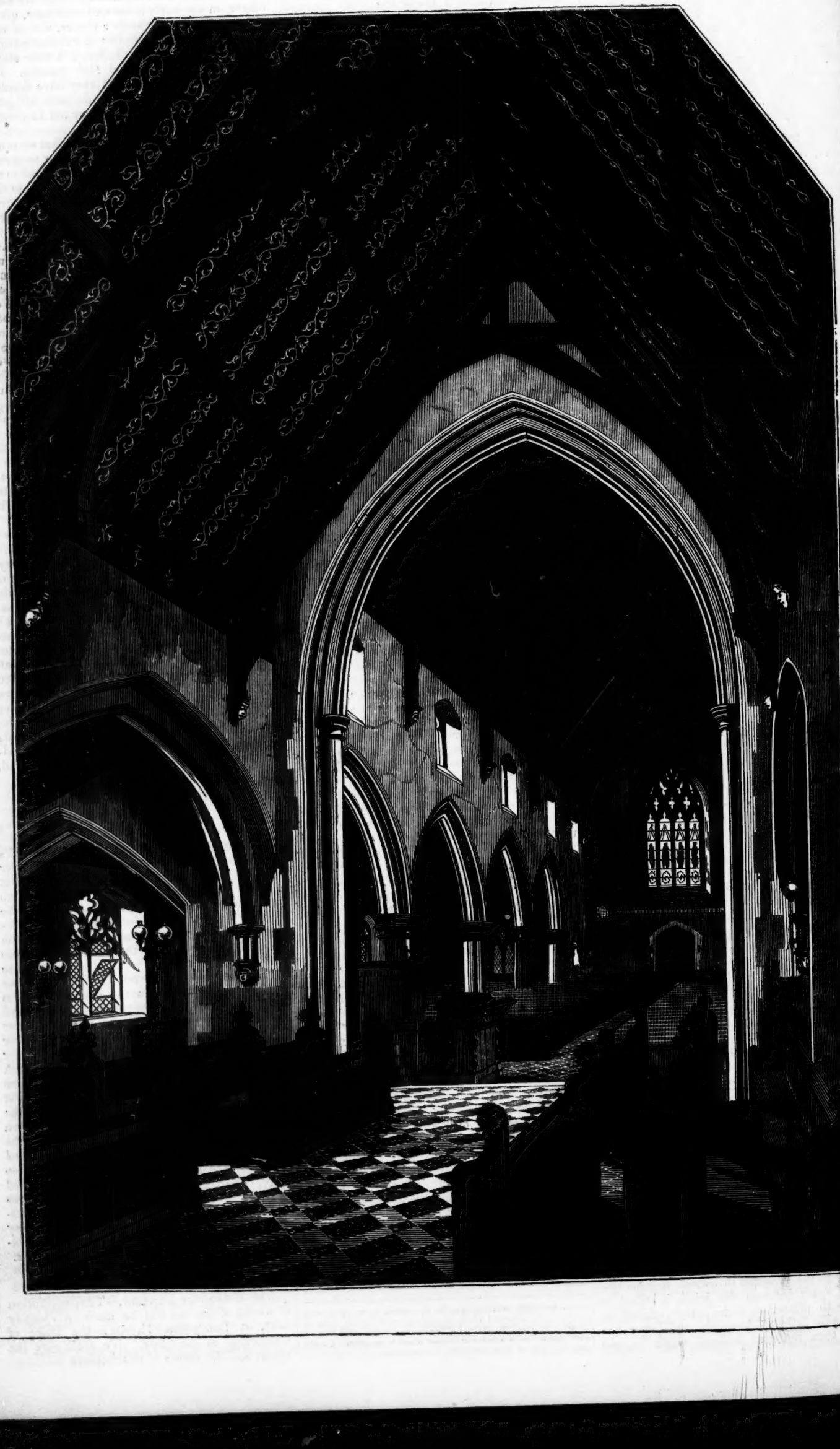
REFERRING to Mr. BURLINSON's remarks on the documents concerning Freiburg Minster in last week's BUILDER, it is suggested that the word "gesellen" is used in them in no other sense than that which it still has in the present day in Germany when applied to workmen, namely "journeymen," and that the state of society among the workmen in those days is nowise brought in question by the use of this still current expression. *Meister* Hans is duly distinguished in the documents from the "gesellen," or journeymen workmen, and he is required to attend once in each quarter at the building, viz., at the Ember-weeks, or Frohn-fasten (not Fron-fast, as printed). Under him is the parlier, or foreman, from French "parler," because, says a German work, he only has to speak on the building. Should it be the case that this word, so derived from the French, is chiefly in use among the workmen of those towns in Germany in which the mediæval masonic fraternities were settled during the erection of the Gothic buildings (so called) of that era, another indication is afforded as to the country from which these societies may be supposed to have derived their principles and practice of architecture, in conformity with the deductions contained in Mr. Inkersley's work, reviewed in last week's BUILDER.

N.

ART-UNION OF LONDON.—The distribution of works of fine art will be made on Tuesday next, at Drury-lane Theatre,—the Duke of Cambridge in the chair. We shall give the report and the names of prizeholders.

INTERIOR OF ST. STEPHEN'S, HAMMERSMITH.

MR. SALVIN, ARCHITECT.



ST. STEPHEN'S CHURCH, HAMMERSMITH.

AT the personal expense of his lordship, the Bishop of London, a church has been built at Shepherd's Bush, under the direction of Mr. Salvin, and was consecrated a few days ago. The bishop also endows it with 150*l.* per annum out of the revenues of his see: the Ecclesiastical Commissioners add 40*l.* per annum, being the amount of the reserved fund payable to them on account of the sinecure impropriated rectory of Fulham and Hammersmith. It is to be the church of a new parish, which is to be named St. Stephen's, Hammersmith; the patronage to be with the Bishop of London for the time being.

The building comprises a chancel, with vestry on south side, nave with aisles, north porch, and tower and spire at west end of north aisle. It is in the Decorated style, and of very satisfactory character. The walls, 2 feet 3 inches thick, are faced with Kentish rag, and the dressings are of Bath stone. The roof timbers, slight in appearance, are open: the spaces between the rafters are plastered and tinted blue,—further decorated in the chancel by scroll-work. The church has open sittings for 632 persons. The organ is on the floor-level, under the tower: the font is near it. The pulpit and reading desk are on the south side: there is no clerk's seat.

The east window, of stained glass (by Wailes) has been presented by members of the bishop's family; the west window, by some residents in the neighbourhood of the church; the two north windows in the chancel, by a gentleman in the neighbourhood; the south window in the chancel, by the architect and builder; the two windows at the east ends of the north and south aisle, by a number of the Essex clergy, as a mark of respect and affection to their former diocesan; a small window near the roof of the chancel, by the bishop's chaplain; and the two quartre-foils in the nave, by Mr. Willement; the organ, by some personal friends of the bishop; the communion plate, by his family and two friends; a silver-gilt alms' dish, by the same Essex clergy; and the font by the churchwardens of the Holy Trinity, Finchley, in testimony of their gratitude for the great assistance rendered to that district by the bishop. The bishop is about to build a parsonage-house, and it is expected that schools will be erected by the parishioners.

The site has been given partly by Messrs. Gomm, of Hammersmith, and partly by the bishop, as lord of the manor, who has also purchased a piece of ground to be added to the site of the house for a garden. The fabric of St. Stephen's was erected in the space of six months by the builders, Messrs. Bird, of Hammersmith: the whole completed in thirteen. The interior is entirely fitted with English oak, and the walls decorated with appropriate inscriptions and diapers, by Castel: the aisles are laid with Staffordshire red and buff tiles, and the chancel with Messrs. Minton's encaustic tiles: the organ was built by Mr. Bishop.

Our view shows the interior, looking west.

The following are the dimensions of the building:—

	Ft.	In.
Length of nave	68	0
Length of chancel	34	6
Total length inside	102	6
The total length from outside walls	107	6
Width of nave	24	0
Width of aisles (each 11 feet)	22	0
Width of piers of nave (each 2 feet 4 inches)	4	8
Total width inside	50	8
Total width from outside walls	55	4
The width of chancel inside	21	0
Ditto outside walls	25	8
There are north and south aisles to chancel extending 14 feet 4 inches beyond the west side of chancel arch, making the length of aisles inside	82	4
Width across chancel and chancel aisles inside	49	8
Tower (west end of north aisle) inside, square	10	0
Ditto ditto outside, square	17	0
The vestry at south of south chancel aisles, inside, is, square	12	0
The height of the nave to ridge is	46	0
The height of the tower to base of spire is	56	9
The height of tower to top of cross	75	0
Total height of tower and spire	131	9

NOTES IN THE PROVINCES.

THE damage done to St. Michael's Church, Cambridge, by the late fire, is found, on examination by Mr. Scott, the architect, to be such as to require extensive repairs, including the entire restoration of the roof, and considerable strengthening of the walls, &c. &c. An appeal to the public beyond the limits of the parish has therefore been made, as the parish contains only 400 inhabitants, far from wealthy. The first contract (for the restoration of the roof and walls) has been taken by Messrs. Quinsee and Attack, at 1,154*l.* 5s., of which sum the parish is liable for 731*l.* 5s.——The Plymouth council are about to lay down a quantity of glass pipes, jointed with gutta percha, as an experiment, for the conveyance of water.——The Board of Guardians of the Truro Union entered into a contract with Mr. J. Pryor, builder, Truro, week before last (his tender being the lowest), for the building of the Union-house, at St. Clement's. The amount is 8,521*l.* They also appointed Mr. Rugg, clerk of works, who has been engaged in superintending the Shepton Mallet Union. There were forty-five applications for the office. The architect for the above is Mr. William Harris.——Mangotsfield Church, for some time dilapidated, has undergone thorough repair, under the direction of Messrs. Pope, Bindon, and Clarke, of Bristol. The edifice has been newly roofed, and is supported by pillars, with connecting arches, in the Perpendicular style. The windows are filled with stained glass, in imitation of the early style. The high and unsightly seats have been removed, and light and convenient ones substituted. Mr. Rogers is the builder, and Mr. J. Davis the master mason employed.——A public meeting has been held at Sudbury, for the erection of a suitable memorial to the late Mr. G. E. Anson, secretary to Prince Albert, Lord Waterpark in the chair, when it was determined that the clerestory windows of the church of Hanbury, the parish where Mr. Anson resided, should be restored and illuminated. Two hundred pounds will be required.——An extensive monastery, it is said, is about to be erected at Rugby.——The superintendent of the gas company at Rugby has found, as anticipated, that the materials for purification of gas already referred to *may* be repeatedly used without the least exhaustion of their power. In noticing before the mode in which the "sulphuretted hydrogen" was got rid of, that term was inadvertently made use of once too often, instead of "sulphurous acid gas," in which form the *oxygen* of the air alluded to causes the sulphur to escape of course, and not as sulphuretted hydrogen. As to the result, it matters not: in both cases the oxide of iron remains—the one useful chemical ingredient, mixed with the sawdust and the *used-up* lime in sulphate.——The foundation stone of a new church, to be called St. Marie's,(?) was to be laid on Monday last, at Liverpool. Mr. Hay is the architect.——The Rev. Dr. Young's pupils are raising a subscription to place a stained glass window in the ancient church of Houghton-le-Spring, where they attended when at Kepier Grammar School. ——Some very successful experiments appear to have been tried at Bolton, with jet and hose acted through by the mere pressure of water in the mains, opened for use by the attachment of new water valves invented by Messrs. Taylor and Galloway. Streams of water were thus not only thrown over the houses, but purposely directed on a chimney, whence brick after brick was toppled by the mere power of the stream. A new fire-escape was also exhibited on the same occasion, before the local authorities, and Mr. Hawksley and other gentlemen from Liverpool, assembled on purpose, according to the *Bradford Observer*.——Mr. James Hartley has presented a stained glass window to Bishopwearmouth church, manufactured at the donor's works.——A committee of Durham county magistrates, we understand, says the *Gateshead Observer*, "have selected from the sixty-five candidates for the office of county surveyor, vacant by the resignation of Mr. Bonomi, the following five gentlemen, one of whom will be appointed by the court:—Mr. John Hosking, of Gateshead; Mr. G. B. Bruce, of Berwick; and Messrs. J. Hill, G. Sibley, and A. H. Patterson, of London. Mr. Hosking is the gentleman who personally carried out Mr. Robert Stephenson's design of the High Level Bridge." We understand the latter was elected.——The old Stockwell bridge at Glasgow is now in course of demolition. "Antiquaries," observes the *Reformers' Gazette*, "will no doubt be looking forward with interest to the probability of there being found, in some part of the structure, the foundation-stone, which, if ancient builders followed the modern practice, need not be sought for very deep in the bed of the river." It is to be hoped, at all events, that something else will be found than merely "a white porcelain biscuit vase with its virgin purity tarnished by the trail of dirty fingers," as on a late *melancholy* occasion.——Mr. G. J. Foljambe, of Osberton Hall, is about to build a church at his own cost, at Brierly, near Barnsley.——A chimney at Darwen, erected in 1847, and about 98 feet high, lately fell to the ground: the foundation had given way shortly after its erection.——A tesselated Roman pavement, in good preservation, has been found amongst the drains in Feather's-lane, Chester. It appears to have led in a direct line to the baths in Bridge-street.——The church of John the Baptist, at Godley-cum-Newton-green, was consecrated on Thursday week before last. It contains 543 sittings in the body of the church (157 free), and 253 free sittings for children in a gallery. Mr. Shellard, of Manchester, furnished the design.——At the last meeting of the Birmingham board of guardians, Mr. Drury, one of the architects of the new workhouse, stated that about thirty applications had been sent in for the office of clerk of the works. Out of that number Mr. Swiney, of London, and Mr. Husband, of Lichfield, had been selected as most eligible, and the guardians gave their assent to the appointment of the latter. The security for the fulfilment of the contract for building the new house was 3,000*l.* as a reserve in payments, and a joint security of 3,000*l.* more. Mr. Glen, the contractor, gave the names of two sureties, whom the guardians by a large majority accepted.——The foundation stone of a church to be erected at Wavertree was laid on Tuesday week. It will consist of a nave 86 feet by 27 feet, and 57 feet in height, with aisles the same length, and 15 feet wide, a chancel 40 feet in length, a south porch, and a steeple at west end of nave, 36 feet wide at base, and rising to 151 feet in height. Owing to limited funds, it is only proposed to contract for the erection of the nave and south aisle, south porch, and portion of the tower at the west end. ——On Wednesday week the new church at Cholderton, near Salisbury, was consecrated. It is in the Perpendicular style, and consists of a long and somewhat narrow single aisle, lighted by four windows on each side, with a large three-light centre window at either end. The walls are of flint, with stone dressings; and the exterior exhibits some carving in the corbel heads, with a string course under the eaves. At the north-west corner is a campanile rising a short height above the roof. Buttresses are placed between each window. The great western door is carved in oak. On entering, there is an ante-chapel, separated by an ornamented stone screen from the body of the church. It is paved with Minton's encaustic tiles,—the centre piece displaying the arms of the United Kingdom. The sittings are of oak, profusely carved, and finishing with poppy-heads. The floor is paved with Minton's encaustic tiles. The pulpit is of stone, octagonal, with crocketed pinnacles. The roof is of open woodwork, and was brought from Ipswich, where it had long covered a public building on the quay, but was supposed to have been removed there at the period of the Reformation, from some old conventual church. The long and narrow shape of the church is owing to its adaptation to this roof. The eastern window is decorated with stained glass. The two contiguous side windows in the chancel are also filled with coloured glass. All these are the work of Mr.

Clutterbuck, of Stratford. The western window represents the Baptism of Christ by John, the passage of the Red Sea, and the four Evangelists: it is the work of Mr. Connor, of Berners-street. The walls are decorated in the interior with scrolls in the mediæval style, by Mr. William Howitt, who executed similar work at Wilton Church. The architects were Messrs. Wyatt and Brandon; and Mr. Alford, of Tisbury, executed the masons' work. The wood-carving and restoration of the roof are the work of Mr. Henry Ringham, of Ipswich. The first stone of the edifice was laid on 29th April, 1841.——The magistrates of Southampton have approved of a plan suggested by the mayor and an architect whom he consulted, for the enlargement of the Guildhall, at a trifling expense, yet so as to make it contain one thousand persons.——The repair and decoration of the Essex County Assembly-room, at Chelmsford, has been so far completed. The tint of the walls is a French white, the small mouldings of the panels in gold, and the entablatures also gilt; the roof is in distemper; the pilasters on the walls have sunken panels grained, the base being of Brocotella marble; the panel is Sienna, with gilded moulding, edged with green. The stiles are of green verd, and the capitals solid gilt, finished with statuary marble. The ornamented frieze above is finished in white and gold. The window recesses and frames and the door are executed in satin wood, and the windows have been fitted up with crimson curtains, surmounted with the county arms in gold. The designs were provided by Mr. Webb, of Chelmsford, and the contractors were Messrs. Winsland and Holland. The cost was principally defrayed by the remains of a subscription made in 1791 for a like purpose. Of 1,000*l.* to commence with, nearly 800*l.* have been expended, Messrs. Winsland's contract of 335*l.* inclusive, and more remains to be done.——The foundation stone of the Great Central Gas Consumers' Works, at Bow Common, was laid on Tuesday last, and was followed by their first annual festival, held at the London Tavern on the same day.

SURVEYORS OF PUBLIC SAFETY.

BY the late catastrophe at Epsom, three persons were immolated, and fifty seriously injured or mutilated. Such an event leads to the inquiry, "Is there no supervision of the platforms and gazebos which are constructed at the race-courses and fairs of this country?" When we reflect on the vast numbers who frequent these scaffoldings, it is only surprising how few accidents do occur, for I have seen suttlers and rustics setting up their poles, putlogs, and traverses, without the slightest notion of that solidity of ligatures and spikes which the most illiterate bricklayer's labourer would put in practice.

The profits resulting from races and fairs are not, however, all engrossed by the victuallers, thimble and tent *riggers*: the lords of manors (and especially that of Epsom) reap enormous profits per booth, table, or pitching stand: the owners exact their *rights*,—have they no *duties?* Such an incident leads one to inquire into the stability of *stand-houses*, which for many years have stood the drizzle of the breeze. On these some 5,000 are not infrequently packed,—being just 125 tons of mortality. It is at least worth the attention of the local surveyor, mayhap of the legislature, to inquire whether there be sufficient stability to sustain such an awful amount of life and responsibility.

The hint is thrown out in order that some rural curator be appointed to look to the security in limb as well as life of John Bull and his family in their least cautious moments,—when pleasure-going. This concerns the State, the coming sports, and present day, as well as

QUONDAM.

HEREFORD ANTIQUARIAN INSTITUTION.—A *soirée* was held on Friday week, Rev. E. N. Bree, the president, in the chair, when a paper on Acornbury Church and Priory was read by Mr. F. Edmunds, and illustrated by drawings of the porch, and the Pauncefort and Clifford monuments, executed by Mr. A. J. Beloe, of Hereford.

COST OF MARYLEBONE BATHS AND WASHHOUSES.

RELATIVE to a discussion on this subject, mentioned last week, we are asked to state that the additional expenditure over the contracts of 13,000*l* (which did not include the baths), was for various additional works in securing the surrounding walls, additional depths of foundations, increased entrances, division of swimming bath, alteration and reversal of the outfall of the drainage, and various matters, including fittings. Our correspondent has handed to us the following tabular statement, showing the cost of this establishment, in relation to its accommodation and cost of the baths, &c., in St. Martin's, as extracted from the reports made to both vestries.

	No. of Baths.	No. of pairs of Wash-tubs.	Tables in separate ironing room.	House Laundry.	Swimming Bath.	Building and Fittings.	Fittings and Furniture.	Cost of Establishment from adoption of Act.	Loans repaid and interest.	TOTAL.
St. Marylebone .	107	90	Yes.	1	2	£18,143 1 3	£1,892 17 7	£4,229 12 10*	£1,554 17 2	£25,890 8 10
St. Martin's	70	36	None.	None.	None.	£19,520 4 0		£2,074 9 6	£1,501 9 2	£23,096 2 8

* In this sum of 4,229*l.* 12s. 10d. is included 3,000*l.* for purchase of freehold site, while the St. Martin's is leasehold, at a rent of 82*l.* per annum.

RAILWAY JOTTINGS.

THE broad guage is but a Lilliputian stretch of axle when compared with a new scheme in the *Railway Times*, proposed by Mr. E. E. Merrall, C.E., as a spanking passenger line, from London to Liverpool, with a 20-feet guage, and a carriage mounted on 10 wheels and 200 feet long by 25 wide and 15 high, with a ship-shaped bottom or hold for luggage, and a double deck, with grand saloon and staircase leading to a grand promenade on the upper deck or roof fenced in by a railing 5 feet high, another large apartment for lower class fares, a ladies' room, refreshment rooms, office, &c. The locomotive to be of course of corresponding power, and to carry fuel and water for the whole journey, which is to be run in four hours, without stations, though with stoppages at platforms, and on a single line of rail, except at a crossing midway: four carriages a-day to travel each way, starting from each terminus at same time, and passing each other at the crossing: fares, 1d. and 2d. a-mile. The line of rail is to be without turnings or curves of less than 4 miles radius, and the rails to be of suitable thickness, laid on longitudinal and transverse sleepers. The guard system would be just such an effectual one as is so much required during the transit of trains, the guards being able to move from place to place, and see that all is safe. The propounder thinks that the enormous saving in engines and carriages, clerks and porters at stations, &c., will induce capitalists to produce the money for such a passenger line. The lines in existence it is generously proposed to retain for luggage.——The marketable value of railway property, it is said, has fallen, since 1845, at least, 100,000,000*l.*——The Ballochmyle Viaduct, which carries the Cumnock extension of the Ayrshire part of the Glasgow and South-Western over the River Ayr, crosses this river at an elevation of 170 feet above its bed. The river is about 100 feet wide, and runs between high rocky banks, used as abutments to great arch. The viaduct consists of seven arches, the centre one being 180 feet in span, and the others 50, all semicircular. The arch-stones of the great arch are, on the outside, 5½ feet deep at the springing, and 4½ feet at the crown, but inside about a foot deeper. If Lord Melville's monument, in St. Andrew's-square, Edinburgh, were placed beneath the great arch, the head of the statue would not reach the crown of the arch. The stone is a close-grained red freestone. The centering was erected in four stages, each stage being proceeded with as the building advanced, and consisted of whole logs of Memel, placed one above another, and properly connected at each stage with cross ties and diagonal braces, and well secured by bolts, &c. The quantity of timber used was about 50,000 cubic feet, and of iron about 6 tons. The work was completed within three years and four months from its commencement. The number of men employed averaged about 400. Messrs. Ross and Mitchell were the contractors, and Mr. Fulton, superintendent. Not a single serious accident occurred during the execution of the works. The quantity of stone used was about 530,000 cubic feet, and the total cost was about 41,000*l.*——The iron bridge to cross the Shannon at Athlone, for the railway to Galway, will be made by Messrs. Fox and Henderson, of Birmingham. Over 1,000 tons of iron will be used in this structure, which will be 700 feet in length. The Kish Bank Beacon will also be constructed by Messrs. Fox and Henderson. This work is to be placed on iron tubes, sunk in the sand by Dr. Pott's patent pneumatic process. This same process is to be used at Athlone for supporting the railway bridge across the Shannon.——A correspondent of the *Swansea Herald* suggests the planting of the embankments, cuttings, and spoil banks of the South Wales Railway with forest trees and coppice wood. He calculates that they would yield at least 10*l.* per acre per annum after twenty years' growth. The seeds sown of old by THE BUILDER are ever springing up anew, as we hope at length to see these plantations by the way side, both for adornment and for profit.

WEAKNESS OF MODERN ART.

WERE an ancient Greek or Roman to rise from his tomb, and, after surveying the wonderful progress of modern civilization, were he to turn his eyes upon our public buildings, to contemplate the prevailing spirit of our modern fine arts, he certainly would be amazed at our progress in all that is called useful, and feel something like pity for our efforts in all that is ornamental.

After studying our sublime theology and our mighty achievements in science and literature, he would be surprised to see us obliged to wander back to his own dark days to draw our ideas of the beautiful and the grand from them. Can our artists and architects find no nobler subjects with which to ornament our public buildings than the disgusting amours or the brutal wars of the heathen gods, with figures of Neptune, or Bacchus, or Satyrs, the last two the personification of sensuality? The ancients followed and made the most of the lights they had, and drew their inspiration from the highest sources then known to them. Cannot we follow their example, not in the letter but in the spirit? Beat about the bush as we may, we must come to the conclusion that the only true end of art is *utility*, and that utility the highest of all, the ennobling of human nature. The fine arts of the ancients were the products of imagination and fancy alone; ours must be the result of the higher and the purer faculty of reason, which is the grand distinction between ancient and modern civilization. The artist, the architect, and the builder must drink of the spirit of the times before they can be appreciated by those who live in these times; they must identify themselves with the grand idea of the age, progress,—increasing, universal, progress.

The ancients looked to Heaven in their art, but it was a Heaven of their own imagining: we also must look to Heaven, not theirs, but that of Christianity; and till art be imbued and inspired by the spirit of the latter it will fail in its mission, as a powerful civilizer of mankind. We are making gigantic strides in science and literature. Why? Because they operate directly and immediately for good—they supply our material wants; but art lags behind—it turns its back upon the wants of the present, and is groping among the relics of the past instead of taking the place that properly

belongs to it in the battle of knowledge with ignorance, Christianity with heathenism, civilisation with barbarism.

Whatever tends not to good is useless; whatever is useless it is a waste of time to pursue. The highest of all good is that which purifies and exalts the soul, and this is the proper duty and use of art, and till such be the purpose and earnest aim of the artist his talents will be misapplied.

Art, like literature, ought to be the exponent of the ideas, and aspirations, and a stimulant to the further efforts, of the age: may we ask if art fulfil these duties in these days of the steam-engine, the press, railroads, ragged schools, and universal education?

ST. MARY'S CHURCH, SHERBORNE.

St. Mary's, Sherborne, now in course of restoration, has several peculiarities of structure which it is desirable to record. The original edifice, of which much still remains, was probably erected in the commencement of the eighth century, by Aldhelm, the first bishop of the see, and nephew of King Ina, by whom it was made an episcopal see: here were buried two grandsons of Egbert, namely, Ethelbald, king of the West Saxons, and Ethelbert, his brother. The south porch (now in a ruinous state), south transept, the whole of the lower part of the tower, and some considerable portions of the north and east external walls of the Romanesque church remain.

The Perpendicular church, commenced in the early part of the reign of Henry the Sixth, and incorporated with the original one, and an Early English chapel which stood at the east end, on the site of King Edward the Sixth's Free-school, was destroyed by fire before its completion: in a broil between the monks and townsmen a priest of Allhallows shot a shaft of fire into the temporary thatched roof used to protect the workmen during the erection of the groined ceiling, which quickly destroyed the whole fabric (Leland). The parts eastward of the tower being least injured, as may be seen by the firemarks extending upwards above the springing of the clerestory windows (the half-burnt tracery of which is still retained) was immediately restored by Wm. Bradford, who was then abbot. The remainder of the church, together with a chapel dedicated to "Our Lady of Bowe," afterwards a parish church, but now taken down, was rebuilt between the years 1475 and 1504, by Peter Ramsam, his successor: of the restoration of the upper part of the tower nothing is known, but from its style, which corresponds with Milton Abbey Church, it is probably but a few years later than the west end.

The structural peculiarities most remarkable are the bringing the Romanesque piers supporting the clerestory walls into harmony with the perpendicular work, the absence of flying buttresses in the western part of the church, and the substitution of Tavertine, or calc tufa, for the heavy "Ham" stone elsewhere used in filling in between the ribs of the groined ceiling, all evincing the great amount of thought and constructive skill brought into play by the mediæval architects and artisans.

The piers originally with engaged shafts around them, as may be seen under the tower and in the south transept, were dressed down and panelled in narrow trefoil-headed panels, about 3 feet in length, which extend to the springing of the arches. A single panel of similar form and size has also been cut in the side of one of the round Romanesque pillars of south chancel.

Owing to the action of the fire on the mortar used in erecting the first perpendicular church, and the removal of several chapels and buildings attached to the abbey and adjoining the church, the flying buttresses erected by Abbot Bradford appear to have had an injurious effect, causing the external walls of the north and south aisles to spread considerably, in which movement the clerestory walls participated to such an extent as to produce a depression of the groined ceiling, amounting to 7½ inches. To obviate this, Abbot Ramsam built the western end without flying buttresses, and substituted for the "Ham," or "Ham-hill" stone, elsewhere used in filling in between the groining of ceiling, a light and spongy, yet hard and durable stone, called Tavertine, or Cale Tufa, imported from Italy (now being replaced by Ham stone). By these precautions this part of the building is in a much better state than the remainder. The bells of this church deserve a passing note. The principal one, a gift of Cardinal Wolsey, is 8 feet 1½ inch across, weighs 6,000 lbs., and is, consequently, the fourth largest in England. On it is inscribed the following legend:—

"By Wolsey's gift I measure time for all,
To mirth, to grief, to church, I serve to call."

Thomas Austin.

STATE OF ARCHITECTURE IN IRELAND.

Lord Dufferin in his speech at the Belfast School of Design the other day said,—There is one other way in which these schools will, I think, be found a great assistance,—I mean in diffusing more correct notions of architectural beauty. Now, if there be one country more than another where this art has been neglected, or rather abused, it is Ireland. In fact, Irish architecture is quite a phenomenon. Disdaining the result of past experience, our architects have determined to sacrifice everything to originality, and—the sacrifice has been complete—their style has, at all events, the advantage of being unique. It is not Grecian, it is not Roman, it is not Gothic,—in fact, debased Hibernic is the best name we could affix to it. Disfiguring the surface of the country, there are innumerable structures, churches, castles, mansions, public buildings, all vieing with each other in deformity. I do not know where I would sooner send a pupil in the science to study; for here he would find ready to his hand specimens of the violation of every rule. And mind, it is not in consequence of a restricted expenditure that this has arisen. I do not complain that our buildings are paltry. On the contrary, their pretensions are enormous; and, besides, it is upon its proportions, and not upon its embellishment, that the symmetry of a structure depends. And immense sums of money have been spent, particularly in the case of church building, in the multiplication of ornaments, which, instead of being ornamental, are nothing but cumbrous excrescences. So universally is this the case, that it has become a general rule. It is a great pity that this should be the case. What nobler, what more lasting possessions has a nation than its architectural structures? What historical associations gather round them; and, when all else has been blotted out, what eternal witnesses do they remain of faded glories and unrecorded life! Thrones, sceptres, governments, peoples, languages, may be swept along in the rolling surges of time, yet there are left behind monuments of a period anterior to antiquity; and we, the heirs of the latter ages, may still wonder at the palaces of Babylon, and the temples of Egypt—the dwelling-places of forgotten kings, and the shrines of departed gods.

Books.

The History of Ancient Art. Translated from the German of John Winckelmann, by G. Henry Lodge. Vol. II. Boston, 1849. James Munroe and Co.

It is interesting to observe the rapid rise of America in many of the more elevating and ennobling pursuits of leisure and taste. Engaged, as it were but yesterday, exclusively in the rough hard work—even though itself a great and noble one—of rendering their new world habitable,—already do we find this youthful nation of nations occupying leisure moments, not a few, in the exercise of far higher faculties than those required in roughing it in a rude unpolished country, or in "beating all creation" in Yankee barter or in the more mature but not more knowing traffic of established commerce. No stronger or more significant evidence of the cultivation of an elevated taste in America, however, has perhaps ever presented itself than this translation of Winckelmann's work and the venture of its publication,—based, as the latter would assuredly be, on something like a longheaded calculation of an adequate number of readers of such art-works as this of our cousin-German, and of admirers of such art as that of ancient Greece of which it treats. The translation itself, however, was undertaken *con amore*, and without ulterior views of *profit*, other than such a stimulant itself presented in the cultivation of the mind and taste of the translator. "Encouraged," however, as he remarks, "by the growing love of art in that country, stimulated as it has been by a few admirable works from the hands of native artists, and impelled from my admiration of this noble masterpiece, by a desire of making it more generally useful in an English version, I at last determined to take the responsibility of submitting one volume to the judgment of the public. I have chosen the second, because it treats of Greek art, the monuments of which are far more numerous and interesting than those of any other nation, and because it presents a systematic exposition of the principles by which the author supposed the Greek artists to have been governed in the conception and conformation of those works which still stand the noblest creations of artistic genius, and about which the students and the lovers of beauty, grace, and majesty still gather with admiration and reverence. Esteeming this volume the most interesting and important of the series, I have not hesitated to offer it first for the perusal of the American public."

The volume itself is handsomely got up, and contains not only copies of Winckelmann's own series of illustrations, but a selection from other sources, one of the author's own works inclusive; and, on the whole, both publishers and translator merit high commendation for the manner in which so choice a volume has been placed in the hands of our transatlantic brethren.

Miscellanea.

The Tax on Light and Health.—A correspondent suggests that it might hasten the latter end of the obnoxious window-tax were we to recapitulate the arguments for its abolition by which it has already been so often assailed in The Builder; but really the force of these arguments and reasons is now so universally admitted that no one requires to be reminded of them. Even the guilty cognomen—"light and health tax," by which we first of all dubbed it, carries its condemnation on the face of it, and by its general adoption in the columns of our newspaper contemporaries, and now in the Houses of Parliament themselves, comprehends a weight of argument in few words, that is doing its work, we believe, effectually, though silently, and will continue so to do until its doom be sealed, as already it virtually is, though not yet in formal reality. Still we shall not relax. A deputation was to attend the Chancellor of the Exchequer this day (Friday).

Wholesale Destruction of Glass.—Another fierce storm has passed over a portion of the empire, but in this case was seemingly confined to Ireland. The wind on Thursday week rose suddenly to a hurricane in the country north-west of Dublin, overthrowing trees, and even roofs, chimneys, and buildings, and, in the midst of lightning and a deluge of rain, a storm of hail occurred, in which masses of ice as large as grapes raked a line of country extending at least some 40 or 50 miles in length, and 3 or 4 in breadth, and, so far as we yet learn, apparently from north-west to south-east, and right through Dublin city, in the south-eastern vicinity of which it seems to have exhausted itself. On a rough calculation, 30,000*l.* worth of glass has been destroyed in Dublin alone, and glaziers there are in consequence just now at a high premium.

Eyam Cross.—An exact *fac-simile* of this relic of antiquity is about to be made for the Duke of Devonshire, who intends placing it in a conspicuous part of the park at Chatsworth. His Grace, accompanied by an eminent sculptor, visited Eyam a week or two ago, when they obtained leave of the rector to have the model taken.

New Church in Marylebone.—An appeal has been issued for aid in erecting a new church for the poor of Marylebone, on a site procured, and capable of accommodating 1,500 persons, two-thirds free, at a cost of 12,000*l.* for erection and endowment.

PROJECTED WORKS.—Advertisements have been issued for tenders, by 13th May, for the erection of a farm-house for Mr. S. Capron, Southwick, near Oundle, Northamptonshire; by 8th May, for the erection of a chapel at Newport, and for schools attached, &c., on plans furnished by Messrs. W. G. and E. Habershon, 38, Bloomsbury-square; by 27th May, for the erection of a Lunatic Asylum for Bucks, at Stone, on plans by Messrs. Wyatt and Brandon, Architects, 77, Great Russell-street, and for supplying cast and wrought iron columns, sashes, joists, and roofs for same; by 11th May, for the erection of a new aisle to the parish church, at Roade, Northamptonshire, planned by Mr. E. F. Law, of Northampton, architect; by 5th May, for the execution of certain works in building a sea-wall at Radipole, planned by Messrs. Jones and Johnson, architects, of 11, Furnival's-inn; by 1st May, for the erection of a church at Radipole, Weymouth, designed by Mr. Talbot Bury, architect, of 26, Golden-square; by 2nd May, for repair of gas columns, lanterns, burners, &c., and for painting and lighting with gas, for the commissioners for lighting Camden-town; by 1st May, for building a school-room and residence for the corporation of Sutton Coldfield; by 30th April, for the construction of 890 yards of road, including drains, &c., for Mr. John Townend Birkendale Vere, Upperthorpe; by 30th, for repairing Swallow-hill-bridge, at Darton, for Mr. Hartley, bridge surveyor, Pontefract; for the supply of paving, granite, flint, Kentish rag, and gravel, for the board for repair of highways, Saint Mary, Newington, Surrey; by 7th May, for supplying the Navy Storekeeper-General, Somerset-place, with soft melting pig-iron for Woolwich, Chatham, and Portsmouth dockyards; by 1st May, for the intended works at Hartburn-bridge, for the justices of the peace for Northumberland, at Morpeth; by 9th May, for the erection of *baths and washhouses at Greenwich*, designed by Mr. Robert Ritchie, of No. 8, Bexley-place, Greenwich, architect; by 2nd May, for the erection of a telescope gasholder, 100 feet in diameter, and a condenser, with pipes, &c., for the Corporation Gas-works, Manchester; by 7th May, for the erection of the parochial schools and residence at Wribbenhall,—Mr. Robert Robinson, of Stourbridge, architect; and by 30th April, for the erection of a rectory-house, with stabling, &c., at Blendworth, Hampshire,—designed by Messrs. Habershon, of Bloomsbury-square, architects.

FALL OF SUSPENSION-BRIDGE AT ANGERS.—A dreadful loss of life has taken place by the fall of the bridge of the Basse Maine, in France, as most of our readers may have already heard. We are not aware that any scientific inquiry has yet been made into the precise manner in which the bridge failed and fell, but it is said, that in consequence of a body of troops having passed along in close column, in place of with proper precautionary division, the suspending rods at first gave way on one side, when a rush was made to the other side: the rods of that side then also broke, and the whole floor of the bridge fell, and with it several hundreds of the troops, a great part of whom were either wounded or pierced through with the bayonets and even the guns of their fellows, or drowned. The bridge was built about twelve years ago, and was repaired at a cost of about 36,000f. only twelve months since. We should be sorry to see our London suspension-bridge exposed to such a test of the strength of its rods.

IMPROVEMENT OF THE NATIONAL GALLERY.—In the event of the Royal Academy giving up their rooms to the National Gallery, would it not both be desirable and practicable to make one uniform and connected building of it, by doing away with the present entrance to the barracks, and letting the troops pass *under an archway* at the level of the basement, and from thence come out into Trafalgar-square by an inclined plane? The farthest entrance near St. Martin's Church might be done away with altogether, considering the little use it is of to the public.—W.

CONVERSAZIONE TO ARCHITECTS' INSTITUTE.—Earl de Grey opens his house to the members of the Institute of British Architects on Friday night next, and has invited many distinguished persons to meet them.

THE PROPOSED IMPROVEMENT ROUND ST. PAUL'S.—At a meeting of the City Commissioners of Sewers, on Tuesday, a letter was read from the chapter clerk of the cathedral, declining to agree to the projected clearance of the space adjoining the cathedral. The main objection of the dean and chapter just came to this,—that as the entrances from Cheapside and Ludgate-hill are still very narrow and obstructive to traffic, so must the space around St. Paul's remain in a like condition. The City Commissioners, however, have determined not to let the matter drop here, and have given directions to their Committee to adopt further measures for accomplishing the end in view, by an appeal to the highest authorities.

THE ARCHITECTURAL ASSOCIATION.—An ordinary meeting was held on Friday last, 19th inst., at Lyon's Inn Hall; Mr. Creeke in the chair. A brief discussion took place relative to the admission to the forthcoming exhibition of architectural drawings in August and September. The chairman stated that the association had resolved to subscribe 1*l.* towards the National Exhibition in 1851. Mr. Dudley then read a paper on "Nature and Art." The point principally dwelt upon was, the importance of designing with reference to the site on which the building is to be erected. That the ancients well considered this there could be no doubt: the buildings of the Egyptians and mediæval remains fully attested this fact. Furness Abbey was adduced as an example where the scenery and building repose together in harmonic design. An interesting discussion followed, in which the introduction of colour was particularly recommended, and the good effect which would be produced by gilding the dome of St. Paul's was remarked. The removal of the duty off bricks was alluded to as a means of extending their adoption for ornamental purposes. The practice pursued by Wren, of lavishing his ornament and displaying his ingenuity where it could be most appreciated, as may be seen by his churches, especially Bow, was touched upon.

ELECTRO-TELEGRAPHIC PROGRESS.—Mr. A. Mitchell, says a contemporary, has recently exhibited a newly-invented apparatus for transmitting messages and news by means of one wire. In exterior appearance this telegraph is not unlike a diminutive upright pianoforte. It contains a key-board, with as many keys as there are letters in the alphabet, besides five other keys for pre-arranged signals. Above this key there is a segmental dial, on which is painted the alphabet, a set of numerals, &c. On touching any of the keys on the key-board, the electro-magnetic circuit is established, and a finger points to the corresponding letter, figure, or word on the dial, at the stations connected in the circuit. Thus, by keys having a letter engraved on each, a child able to read and spell could transmit a message, and a child who can read and write could receive it. Mr. Mitchell states that the apparatus generally in use on British railways costs in construction about 150*l.* a-mile; but that he could fit up the new instrument at 30*l.* to 35*l.* per mile.——The submarine telegraph between Dover and Calais is to be opened to the public, it is said, on 4th May, the anniversary of the proclamation of the French Republic.——A French commission, says the *Mining Journal*, "has been appointed to examine into the merits of the magneto-electric telegraph invented by Mr. Henley, with a view to its adoption by the French Government. A great saving, it is expected, will result from its adoption, as not only the expense and trouble of the voltaic battery are entirely dispensed with by the substitution of magnetic electricity, but wires of one quarter the usual weight are found sufficient for the purpose. The instruments tried in Paris, though very small, are said to be fully capable of working at least 1,000 miles, and the importance of this can readily be estimated, when it is known that for a distance of 300 to 400 miles only from five to six of the twenty-four cell voltaic batteries are required to work the telegraphs generally in use in England."

BURNING THE DEAD.—"The Pioneer Metropolitan Association," for promoting this practice, are to hold a public meeting "at the City of London Mechanics' Institute, Gould-square, Crutched-friars," on Friday, 3rd May.

DISFIGUREMENT OF LONDON-BRIDGE.—In the Court of Common Council, the other day, great objections were made to the brick building now being raised on the Surrey side of London-bridge, near the Bridge House Tavern. We don't wonder at it. It is an ugly pile, sadly in the way.

PROFESSIONAL REMUNERATION.—In the case Fowler *v.* Drake, reported by us a short time ago, a rule for a new trial has been granted to the plaintiff, on the ground of the improper rejection of certain evidence, and also because the verdict was against the evidence in the cause.

HOXTON RAGGED SCHOOLS have been opened. The building cost 750*l.* We are told that it is in the Tudor style of architecture, with stone dressings. Its extreme length is 70 feet, breadth 20 feet, and the height 45 feet, and it is capable of accommodating 600 children, with offices for master and matron, &c.

SURVEYING BY MACHINERY.—A machine, it is said, has been invented in Philadelphia, which, if trundled over a tract of country, will give a more accurate survey for a railway, altitudes, depressions, and space included, than can be made by any other method, at the rate of fifteen miles a day.

SURVEYORS' TENDERS, CORK.—Proposals delivered to the guardians of the Cork Union, for a coloured map of the union; the townland survey, 6 ins. to the mile, to be reduced to ½-inch to the mile:—

Deane, C.E.	£36	0	0
Bernard, C.E.	35	0	0
Deasy, Surveyor ..	24	10	0
Klein, C.E.	19	19	0
Jones, Architect ..	10	0	0

TENDERS

For building a new college with residence attached at St. John's-wood; Mr. W. Emmett, architect:—

	College.	House.	Total Amount.
Hayward and Nixon	£11,500	£2,436	£13,936
Little and Son.....	11,430	2,350	13,780
Jay.....	10,365	2,400	12,763
Rigby	10,240	2,236	12,476
Carter and Ellis.....	10,105	2,205	12,310
Ashby	10,050	2,220	12,270
Piper.....	9,890	2,116	12,006
Trego	9,934	2,018	11,952
Myers	8,776	1,900	10,676

For new vicarage house at Pirton, near Hitchin; Mr. F. Pougett, architect:—

Howard, London	£1,193	0	0
Bates, Stevenage	1,147	10	0
Geves, Hitchin	1,074	0	0
Kirby and Co., Tottenham..	1,065	15	0
Butterfield, Hitchin	1,046	0	0
Wood, Islington (accepted)	1,834	0	0

For national schools in the Trinity Church district, Margate; Mr. Caveler, architect:—

Jenkins	£1,045	0	0
Duckett (accepted)	983	0	0
Fisher and Son	945	0	0

MEETINGS OF SCIENTIFIC BODIES

To be held during the ensuing week.

TUESDAY, April 30.—Institution of Civil Engineers, 8 p.m.

THURSDAY, May 2.—Royal Society, 8½ p.m.; Society of Antiquaries, 8 p.m.

FRIDAY, May 3.—Archæological Institute, 4 p.m.; Architectural Association, 8 p.m.

BUILDINGS AND MONUMENTS,

MODERN AND MEDIÆVAL;

Being Illustrations of the Edifices of the Nineteenth Century, and of some of the Architectural Works of the Middle Ages.

BY GEO. GODWIN, F.R.S.,

Fellow of the Institute of Architects; Corresponding Member of several Societies.

Part VII. of this work, price 2s. 6d. will be published on Wednesday next, containing views of the Royal Lyceum Theatre; Church of the Immaculate Conception, Farm-street, Grosvenor-square; the Church of La Villette, Paris; St. Augustine's College, Canterbury; St. Peter's Hospital, Wandsworth; the Printers' Almshouses, Wood-green, Tottenham; Custom-house, Rouen; the Chapter-house, Chester Cathedral; with descriptive letter press and numerous details.

Part VIII. will be published June 1, and will complete the work. To prevent disappointment, the names of parties intending to take the work when completed should be sent forthwith.

To be had at the Office of "The Builder," 2, York-street, Covent Garden, or, by order, of any Bookseller.

TO CORRESPONDENTS.

"Lego," "R. N.," "J. M." (we shall be happy to see drawing), "X. L." (it depends on covenants of lease. We should say—No.) "A Great Admirer," "W. M. B." (see Mr. Fairbairn's letter in *Times* of Wednesday), "J. L. B." (not dear), "Constant Reader," "Ex M. P.," "G. G.," "Chapel-Keeper," "C. R. C.," "J. M." (338, 339, 349, 361, 362, may be had: others are out of print.) "T. O. Q." (Basevi, 38, Red Lion-square), "R. G." (366 will not be reprinted), "J. C. M." (apply to M. Regnar Westenholz, 2, Savage-gardens, London), "C. E." (ditto), "One who Intends," &c. (apply to Mr. H. Cadogan, Pickett-place, near Temple-bar, and to Mr. Prickett, 15, Chancery-lane), "A Voluntary Exile," "G. P. S.," "F. C.," "F. W." (thanks; we do not wish to engrave it), "P. T.," "C. B.," "F. T.," (send us description), "An Architect," "J. H. C.," "An Essay on Window Tracery," by E. A. Freeman, M. A. (J. H. Parker, Oxford-street, London, 1850.) "Inquiry into the nature and application of Perspective," by H. Twining, Esq. (Longman and Co., 1850.) "Practical Ventilation," by R. Scott Bevan, Engineer (Edinburgh—Blackwood and Sons, 1850.)

NOTICE.—All communications respecting *advertisements* should be addressed to the "Publisher," and not to the "Editor:" all other communications should be addressed to the EDITOR, and *not* to the Publisher.

"*Books and Addresses.*"—We have not time to point out books or find addresses.

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NILE.—Grand Moving Panorama of the NILE, comprising all the monuments of antiquity on its banks, to which is added the interior of the great rock-cut Temple of Abou Simbel, painted by Messrs. Warren, Bonomi, and Fahey. Also, a collection of Egyptian and Nubian curiosities.—Egyptian Hall, Piccadilly, daily at Three and Eight. Stalls, 3s.; pit, 2s.; gallery, 1s.—Children and schools half-price.

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H. MORRELL, BLACK LEAD PENCIL MANUFACTURER, No. 149, Fleet-street, London.
These Pencils are prepared in various degrees of hardness and shades.

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N.B. COWLEY and KENT BRICKS of every description, and KENTISH RAGSTONE direct from the quarries, at a reduced price.

FIRE BRICKS, &c.—THOMAS B. SMITH begs to inform Builders, Gas Companies, Founders, Brewers, and Distillers, &c. &c., that he has commenced business as agent for W. C. Carr, of Newcastle, manufacturer of FIRE BRICKS, TILES, LUMPS, CLAY, &c., which articles he can offer of the best quality, cheaper than any other person in London.—Address, St. Ann's Fire Brick Wharf, Limehouse.

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BRICKS.—In consequence of the low price at which Brickmakers have, for some time past, been purchasing Ashes and Breeze, H. DODD is enabled to offer his bricks, which are of good quality, at the following low prices; and as his fields are only a quarter of an hour's walk from the City, H. D. earnestly requests purchasers will favour him with a visit, in order to inspect his stock and to judge for themselves.

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N.B. Red Pit Sand, of approved quality, constantly on sale, upon reasonable terms. In the erection of walls, where it is desirable that the work should be kept as free from damp as possible, this sand, from its not containing any saline matter, is acknowledged to be preferable to river sand.

JORDAN'S PATENT MACHINE CARVING and MOULDING WORKS for WOOD and STONE, Belvedere-road, Lambeth, and 154, Strand.—TAYLOR, WILLIAMS, and JORDAN beg to call the attention of the building community to a new feature of their establishment, and, at the same time, to thank their numerous patrons and friends for the very liberal support they have lately experienced, which, they assure them and the public, it will be their constant endeavour to deserve, by giving their customers an increasing share of the advantages arising from the constant improvements in the machinery which they have just succeeded in applying to the production of the most intricate carving in Caen and other freestones, and in statuary marble.
T., W., and J. particularly solicit the attention of architects and builders to the fact that, by the use of this machinery, a very large saving, both of time and money, is effected,—so great, indeed, that in many cases they can deliver a well-finished article in Caen stone for less money than it can be obtained in cement, while their wood-carving will, in some cases, be found to come into close competition with the best kinds of composition ornament.—For prices and estimates apply at 154, Strand.

TESTIMONIAL FROM CHARLES BARRY, ESQ.
"Westminster, May 18th, 1848.
"Gentlemen,—In reply to your letter requesting my opinion of your patent Carving Machinery, I have much pleasure in stating, from an experience of more than two years, in its application to the production of the wood carvings of the House of Peers, and other apartments of the New Palace, at Westminster, that I am enabled to make the most favourable report concerning it, and to add that it has more than justified the favourable terms in which I recommended it in 1845 to her Majesty's Commissioners of Woods and Works for adoption.—I remain, Gentlemen, yours faithfully,
"CHARLES BARRY."
Messrs. Taylor, Williams, and Jordan."

BATH STONE OF BEST QUALITY.
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CAEN STONE, SELECTED FOR EXTERNAL WORKS.—LUARD, BEEDHAM and Co., Quarry Proprietors and Importers from Allemagne.
AUBIGNY STONE from the Quarries, near Falaise, Calvados Department.—Aubigny is of similar colour to Portland Stone, its texture finer, price and labour of working about the same.
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TO BUILDERS, MASONS, AND CONTRACTORS.
OBSERVE! the CHEAPEST DEPOT in England for MARBLE CHIMNEY PIECES, &c., of superior quality, is the WESTMINSTER MARBLE COMPANY'S PATENT WORKS, Earl-street, Holywell-street, Millbank.—Country orders attended to, and a large assortment always in stock.

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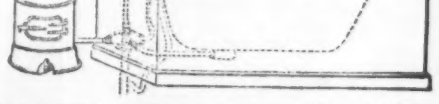

BATHS.—TYLOR'S IMPROVED APPARATUS, consisting of ENAMELLED MARBLE BATH, COPPER CIRCULATING BOILER, and three-way cock with index-plate for hot, cold, and waste water, complete. Does not require brickwork, is portable, and in most cases can be supplied ready for use. Apply to the ironmongers and plumbers, or the manufacturers, J. TYLOR and SON, Warwick-lane, London.

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FIFTY PER CENT. saved in time and labour.—BURTON and CO.'S IMPROVED PATENT LIQUID KNOTTING requires no preparation. Sold by most Oilmen in London, at 1s. per bottle, or wholesale, by the proprietors, at 10s. per dozen, or 11s. per gallon. Forwarded free within 20 miles of London, on receipt of a post-office order to No. 3, Wellington-street, Camberwell, Surrey. A few travellers and country agents wanted. All letters pre-paid.

TO THE BUILDING PUBLIC.
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KEENE'S and PARIAN CEMENTS, for internal stucco, are employed very advantageously in place of wood for skirtings, architraves, and panel mouldings, and for in-door flooring, instead of stone. The peculiar properties of PARIAN Cement allow of its being painted or papered upon within a few hours of its application, and thus render it an important substitute for common plastering in those cases where expedition and beauty of finish are essential.—J. B. WHITE and SONS, Millbank-street, Westminster. Patentees of KEENE'S Cement, Licensees of PARIAN Cement.

PORTLAND CEMENT, as manufactured by J. B. WHITE and SONS, possesses all the properties of the best Roman Cement, but has the advantage over that material of wholly resisting frost. When used as a stucco it does not vegetate or turn green in damp situations, and requires no colouring. Employed as an hydraulic mortar for brickwork, it carries four to five measures of sand to one of cement, and is proved by trial to become harder and stronger in these proportions than Roman Cement with but one measure of sand. This superior connecting power, combined with its eminently hydraulic properties, point it out as the fittest material for building sea and embankment walls, the lining of reservoirs, cisterns, and baths, and for all those purposes where strength and a perfect resistance to water are required.
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PORTLAND CEMENT, solely MANUFACTURED by WILLIAM ASPDIN, Son of the Patentee.—Messrs. ROBINS, ASPDIN, and Co. request reference to No. 296, page 491; and also Nos. 334 and 335, pages 343 and 351 of "The Builder," for accounts of EXPERIMENTS on the strength of Portland Cements, whereby the great superiority of their Cement is manifest. This Cement has been proved for upwards of twenty years in the Thames Tunnel to resist the action of water; it is stronger in its cementitious qualities, harder, and more durable than any other description of Cement; it does not vegetate, oxydate, or turn green; nor is it affected by any atmospheric influence whatever the climate, resisting alike the action of frost and heat. It is manufactured to set in from five to sixty minutes. For all purposes that Cement is applicable the Proprietors challenge competition.—Orders received by Messrs. ROBINS, ASPDIN, and Company, at their Manufactory, Northfleet, Kent, and their Wharf, Great Scotland-yard, Whitehall; also at their Depôt, 95, Hanover-street, Liverpool.

THE PARIAN CEMENT, for INTERNAL STUCCO.
No. 4, Porchester-terrace North, Paddington, 15th February, 1850.
Dear Sirs,—I have been reluctant to speak to the merits of Parian Cement, until sufficient experience enabled me to do so. As an extensive builder I have given it many trials, and now beg to express my perfect satisfaction with it. The house from whence I date was first inhabited by me on 7th September last, not a brick having been laid before the 1st of June!—that is to say, in three months and one week! I stuccoed the walls throughout with Parian; papered some, painted and marbled others; and the whole work has been dry and perfect from that hour. I need say no more.—I am, Gentlemen, yours respectfully,
WM. SCANTLEBURY.
Messrs. Chas. Francis and Sons, Nine Elms.

MARTIN'S PATENT FIRE-PROOF AND ORNAMENTAL CEMENT, APPLICABLE FOR ALL INTERNAL PURPOSES WHERE PLASTERING IS REQUIRED.
This invaluable Cement has now been before the public so many years, and obtained so high a standing in the estimation of all who have used it, that it is unnecessary to comment on its merits. Messrs. STEVENS and SON however feel called upon to observe, that from the greater extent of surface which a given quantity of MARTIN'S will cover, as compared with other Cements for internal use, there will be found a gain of 16½ per cent. in material, full 7 per cent. less in price, with an additional saving in labour of 10 per cent., by its allowing about forty minutes for working, being less than one-tenth of the time of other cements of a similar nature, therefore worked with greater facility, making together the enormous saving of full THIRTY-THREE PER CENT.; its advantages therefore cannot admit of doubt.
Specimens, showing its beauty, hardness, and applicability to all plain and ornamental purposes, may be seen; and the Cement, in any quantity, obtained of Messrs. STEVENS and SON, at their Plaster and Cement Works, 186, Drury-lane, London.—Manufactory, Derwent Mill, Derby.

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City—Purfleet Wharf, Earl-street, Blackfriars.
Pimlico—Grosvenor Basin.
Chelsea—Druce's Wharf.
Paddington—No. 19, North Wharf (adjoining Great Western Termini).
Camden-town—James-street.
City-road Basin—Wharf-road

BELL'S PATENT LIQUID CEMENT is ready for use, and only one-eighth the cost of oil-paint. For beauty it is pre-eminent, giving the exact appearance of FINE CUT STONE. Can be used at once on fresh Roman Cement, or any other plastering, and will protect the walls as well as Roman Cement. In casks of 1, 2, and 3 cwt., at 3s. 1½d. and 2½d., casks inclusive.
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Invaluable for cheapness, beauty, and permanence: not half the cost of other paints, always ready for use, will keep good for years, and therefore well suited for exportation. Brilliant black, 2s.; rich browns, 2s. 9d.; greens and light colours, 4s. per gallon.
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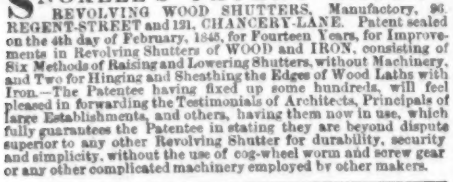
TO BUILDERS, CONTRACTORS, ENGINEERS, NOBLEMEN, LANDED PROPRIETORS, AGRICULTURISTS, AND OTHERS.
THE PATENT ALKALI COMPANY'S METALLIC BLACK, BRIGHT RED, and PURPLE-BROWN PAINTS are applicable for covering iron and woodwork of every description, also stuccoed and brick buildings, and are remarkable for their superior preserving properties, cheapness, and durability.—Offices of the Company, 1, New Broad-street, London.
JOHN A. WEST, Secretary.

PEAT CHARCOAL and SANITARY REFORM.—The Plans and Proposition submitted to the Metropolitan Commissioners of Sewers by Mr. Jasper W. Rogers, C.E., for the "Sanitary Reform" of London, by the aid of Peat Charcoal, are open at these offices, free for inspection;—and the public is specially invited to examine them. A pamphlet, containing the proposition, with estimates, and a few facts from the press, &c., may be had gratis. Small samples of "Peat Charcoal Manure," with analyses of its components, can be obtained; so that all persons may have the opportunity of testing its properties and purity!—Sanitary Engineering Offices, 88, St. James's-street, London.



JENNINGS' PATENT SHOP SHUTTER SHOES and FASTENERS, INDIA RUBBER TUBE-COCKS, and WATER CLOSETS, can be had through any plumber or ironmonger. The only manufacturers are — JOHN WARNER and SONS, Crescent, Jewin-street, and GEORGE JENNINGS, Patentee, 29, Great Charlotte-street, Blackfriars-road. —Descriptive drawings and testimonials sent free, on application.

SNOXELL'S PATENT SAFETY REVOLVING WOOD SHUTTERS, Manufactory, 96, REGENT-STREET and 121, CHANCERY-LANE. Patent sealed on the 4th day of February, 1845, for Fourteen Years, for Improvements in Revolving Shutters of WOOD and IRON, consisting of Six Methods of Raising and Lowering Shutters, without Machinery, and Two for Hinging and Sheathing the Edges of Wood Laths with Iron.—The Patentee having fixed up some hundreds, will feel pleased in forwarding the Testimonials of Architects, Principals of large Establishments, and others, having them now in use, which fully guarantees the Patentee in stating they are beyond dispute superior to any other Revolving Shutter for durability, security and simplicity, without the use of cog-wheel worm and screw gear or any other complicated machinery employed by other makers.

IRON SHUTTERS.—The PATENT CONVEX REVOLVING IRON SHUTTERS are cheaper, twelve times stronger, work easier, cannot run down, and roll up in one-third less room than any other shutters made. Harcourt Quincey, Patentee.

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BUNNETT and Co., ENGINEERS,
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Shop-fronts completely fitted up and glazed with best plate glass Metal works and improved machinery of all kinds for warehouses, banking-houses, &c.

BUNNETT and Co. challenge competition as to either quality or price.

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CHUBBS' PATENT DETECTOR LOCKS give perfect security from false keys and picklocks, and also detect any attempt to open them. They are made of all sizes, and for every purpose to which locks are applied, and are strong, secure, simple, and durable.

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BUILDERS' CASTINGS at REDUCED PRICES.—Rain-water Pipes and Gutters (half-round and O G), Sash-weights, Air Bricks, &c., Drain Gratings; also, Socket-pipes for Gas, water, or drainage, Lamp Columns, and Wrought-iron Gas Tubing, in Stock, at LYNCH WHITE'S Iron Wharf, 66, Bankside, Southwark.

A. WHYTOCK, 494, New Oxford-street, London, begs most respectfully to inform Builders and the public, that he has removed to the premises as above, where he has on sale a complete variety of BATHS, all manufactured of Morewood and Rogers's Patent Galvanized Tinned Iron. The accompanying sketch represents a Plunging, a Shower, and Springing Bath combined, which A. W. has secured by registration.

It costs no more than the old-fashioned Shower Bath, while from its simplicity it is free from liability of getting out of order.

A. W. continues to supply
PLAIN AND CORRUGATED ROOFING;
and Houses made of the Patent Metal, for
CALIFORNIA AND THE COLONIES.

WORKS, 5, QUICK-SET-ROW, NEW-ROAD.

IRONWORK.—THOMAS PERRY and SONS, 252, Oxford-street (near Hyde-park) and Highfield's Foundry and Wrought-iron Works, BILSTON, STAFFORDSHIRE. ESTABLISHED 1809. Manufacturers of all descriptions of Cast and Wrought-iron Work. GATES, BALCONIES, CAST-IRON VENTILATING PANELS, for hot water apparatus, &c. Iron and Wire Fencing, Hurdles, Stable Fittings; also IRON AND BRASS BEDSTEADS. The trade supplied on the most liberal terms.

*** Estimates prepared and drawings made, if required. An extensive stock always on hand at the London Depôt and at the Works.

TO GAS AND WATER COMPANIES, ENGINEERS, AND CONTRACTORS.

ANDREW M'LAREN & Co., Ironfounders, STEEL YARD WHARF, UPPER THAMES-STREET, have always on hand a large STOCK of SOCKET PIPES of all size, with the usual connections. Retorts, columns, girders, and all description of castings contracted for.

Their stock of goods for GENERAL IRONMONGERS is unequalled for variety and lowness of price: comprising, range, register, and elliptic metal and stoves, rain-water pipes, O. G., and half-round guttering, sash-weights, railing bars, panels, bakers' oven work, sink traps, air bricks, water closet metal, &c. &c.

Printed list of prices, and books of drawings for the use of ironmongers, forwarded on application.

HIGHLY IMPORTANT to Engineers, Builders, Contractors, Plumbers, and Others.—REDUCTION in the price of CASTINGS for 1850.—J. JONES, Iron Merchant, Iron Bridge Wharf, No. 6, Bankside, begs to inform the above parties that he has no doubt he will now be found lower than any house in London for the following Pipes and Castings, viz.:—Gas and Water Pipes, Bends, Syphons, Branches, Tee-pieces, &c.; Retorts and Lamp-posts, Hot Water and Flange Pipes, Saddle and Conical Boilers, Supply Cisterns, and all other fittings for Hot Water. Rain-water Pipes, Half-round and O G Gutters, Railing Bars, Sash Weights, Air-bricks, Traps, Gratings, Coal Plates, Tile-lights, Barrow Wheels, &c., &c. Also Stable Fittings, viz.:—Mangers, Hay-racks, Ramps, Cills, Posts, Stable Gutters, &c. The above, as well as numerous other Castings, are of the best quality.—Iron Bridge Wharf, No. 6, Bankside, London.

February 1, 1850.

FOUNDRY AND IRONWORKS,
1 8, DRURY-LANE, and CHARLES-STREET, DRURY-LANE,
GLOVER, BROS.,

Solicit the attention of the Trade to their extensive Stock of PATTERNS for CASTINGS of EVERY DESCRIPTION, either structural or ornamental.

Patterns of Girders, Columns, Balconies, Railing, Ornamental Carriage and Park Gates, Lamp and Street Posts, Tanks, Pipes, Wheels, Pinions, Lathes, and Steam-engines; Range and Hot-plate Metal. An improved Soot Door adapted for internal work.

A large stock of Rain-water Pipes, Plain and O G Gutters, Air-bricks, Sash Weights, Air-tight Sewer Grates, Stable Fittings, Hurdles, &c.

Plain and Ornamental Vases 20 per cent. cheaper than Terra-cotta.

Estimates given for Iron Buildings, Wrought-iron Roofing, Greenhouses, Staircases, Wrought-iron Girders, Fireproof Doors, Book Safes and Strong Rooms, Tanks and Boilers and every description of ironwork to specification, and the work executed with every attention to quality and despatch.

GLOVERS' IRONWORKS,
168, DRURY-LANE, and CHARLES-STREET

GRICE'S IRONMONGERY, STOVE, and RANGE WAREHOUSE, 18, Walworth-road, London.

Elliptic Stoves, with Double Backs, 2½d. per inch; Register Stoves, 5d. per inch.

3-feet Self-acting Cottage Ranges, Oven and Back Boiler, 33s. each.

Cut Sheet Floor Brads, 11s. 9d. per cwt.

Cut Clasp Nails.

15s.	14s. 6d.	14s.	13s.	12s. 6d. cwt.
1½	1¾	2	2½	3 in.

1-inch Cut Lath, 13s. 9d. per cwt.

6-inch 2 bolt Rim Locks, with Scotch Springs, best patent furniture, 14s. 6d. per dozen.

Improved Bow Latches, 6s. 6d. per doz.

HOT WATER APPARATUS for heating greenhouses, &c., on improved principles, being the cheapest heat known.

TO BUILDERS and CARPENTERS.—

Elliptic Stoves, double backs, 2½d. per inch.

Register Stoves, 6d. 6½d. 7½d. per inch.

Self-acting Ranges, with Circular Ovens and Back Boilers, best wrought bars and bright fittings—

3 ft., 2l. 18s. 3 ft. 6 in., 3l. 7s. 4 ft., 3l. 15s.

3-feet Cottage Ranges, with Oven and Back-Boiler, 35s. each.

3-feet self-acting ditto ditto, 36s. each.

Air Bricks, 3s. 6d. per doz. Sash weights, 5s. per cwt.

Best Patent Cut Clasp.

4½d.	5d.	7d.	10d.	1s. 2d.	1s. 8d. per 1,000
3d.	4d.	6d.	8d.	10d.	20d.

Best Sheet Floor Brads, 13s. per cwt.

Best Town Glue 38s. Do. Scotch, 52s. per cwt.

Best Patent Sash Line.

1	2	3	4	5	6
4s.	4s. 6d.	5s. 6d.	7s.	8s.	10s. 6d. per gross.

At F. R. WILLIAMSON'S IRONMONGERY and STOVE WAREHOUSE, 35, Chiswell-street, Finsbury-square.

Lists of Prices had on application at the Warehouse, or by letter pre-paid, inclosing postage stamp.—Warehouse closes at 7 o'clock.

TO BUILDERS, CABINET-MAKERS, and OTHERS.

Best Cut Sheet Flooring Brads, 12s. per cwt.

Fine Cut Clasp and Rose.

15s.	14s. 6d.	14s.	13s.	13s. per cwt.
1½	1¾	2	2½	3 inch.

Cross Garnet Hinges, per dozen pair.

2s. 9d.	3s. 3d.	4s. 3d.	5s.	6s.	8s.
10	12	14	16	18	20 in.

Best Bright Tower Bolts, per doz.

1s. 3d.	1s. 7d.	2s.	2s. 6d.	2s. 10d.	3s. 3d.	3s. 7d.
3	4	5	6	7	8	9 in.

Iron Rain-water Pipe.

9½d.	10½d.	1s. 1d.	1s. 5d.	1s 8d. per yard.
2	2½	3	3½	4 inch.

Best London Glue, 38s. per cwt.

Cast Lath Nails, 10s. per cwt.

Air Bricks, 3s. 6d. per doz.

Hooping for bond, 8l. 10s. per ton.

Sash Weights, 5s. per cwt.

TERMS—NET CASH.

A price-list may be had on application.

A. L. PFEIL and Co.,
Wholesale Ironmongers, Brass Foundry and Nail Warehouse,
5 and 6, Broad-street, Bloomsbury, London.
AGENTS FOR LEA'S PATENT MORTISE LOCKS AND BOLTS.

TO BUILDERS AND CARPENTERS.

J. H. BOOBBYER and CO., late Sturch and Boobbyer, at their Ironmongery, Brass Foundry, and Nail Warehouse, No. 14, Stanhope-street, Clare-market, London, for the supply of Carpenters, Builders, Cabinet-makers, Upholders, &c., at wholesale prices.

Best Cut Sheet Flooring Brads, 12s. per cwt.

Fine Cut Clasp and Rose.

15s.	14s. 6d.	14s.	13s.	13s. per cwt.
1½	1¾	2	2½	3 inch.

Best Bright Tower Bolts.

1s. 3d.	1s. 7d.	2s. 2d.	2s. 6d. per dozen.
3	4	5	6 inch.

Best Patent Sash Line.

4s.	4s. 6d.	6s.	7s. 3d.	9s.	10s. 9d. per gross.
No. 1	2	3	4	5	6

Cast Lath Nails, 10s. per cwt. Sash Weights, 5s. per cwt.

Air Bricks, 3s. 6d. per dozen.

DR. ARNOTT'S VENTILATORS.

11 by 8 inches ..... 5s. each.
16 by 9 " ..... 8s. "

An assortment in Brass, Bronzed, Gilt, &c.

An extensive stock of Mortise Locks, Drawback Locks, Iron Rim Locks, and Latches, of every description, at very reduced prices; also Door Furniture, in china, amber, crystal, ivory, ebony, buffalo, horn, brass, &c., with Finger-plates, Bell-pulls and Levers *en suite*.

Agents for LEA'S PATENT MORTISE LOCKS and BOLTS, and inventors of SHIFTING BOLT MORTISE LOCKS &c.;

PROTECTION from FIRE, and GREAT ECONOMY in BUILDING.—A pamphlet, descriptive of the method by which both these important objects are secured, may be obtained on application to Messrs. FOX and BARRETT, 46, Leicester-square.

THE GALVANIZED IRON COMPANY,
No. 3, Mansion-house-place,

Call the particular attention of Architects, Builders, and others, to their patent process of galvanizing, or coating iron with PURE ZINC, which, from its action being chemically true, effectually and PERMANENTLY prevents RUST. The process is applicable to all sorts of iron work (whether cast or wrought) in use for building purposes—such as ROOFS, gutters, girders, floors, WATER or GAS PIPES, railings, window sashes and guards, blinds, skylight frames, chimney cowls, cisterns, screws, nails, locks, keys, chains, wire guards, &c., &c., &c. The Company undertake to supply GALVANIZED IRON, or to GALVANIZE every description of iron work, in any quantity required.—Particulars and prices at the Offices of the Company, 3, Mansion-house-place. London Galvanizing Works, Millwall, Poplar. S. VINCENT, Secretary.

N.B. This Company's patent process is applied to the roofs of the New Houses of Parliament, the sheds in the dockyards at Woolwich, Portsmouth, and Devonport, the Waterloo Station belonging to the London and North-Western Railway Company at Liverpool, and numerous other railway stations, &c., &c., with the most perfect success.

IRON ROOFING WORKS,
BIRMINGHAM, late of Southwark.
Office,—3A, MANSION-HOUSE-PLACE, LONDON.
JOHN H. PORTER,
PATENTEE
Of the Corrugated Iron Beams, Girders, and Fire-proof Floors;
MANUFACTURER OF IRON ROOFS AND BUILDINGS,
Chiefly of
THE PATENT GALVANIZED IRON.

This material has been employed by J. H. PORTER for several years past in the construction of Iron Roofing for RAILWAY STATIONS and DOCKYARDS, at home and abroad; FARM BUILDINGS, FACTORIES, GASWORKS, WAREHOUSES, &c.; SUGAR-HOUSES, MEGASS and COFFEE-SHEDS, STORES, DWELLINGS, and MARKET-PLACES, in the East and West Indies, China, at the Cape of Good Hope, and in other parts of the world; Iron-bar and Strained-wire Fences, Sheep and Cattle Hurdles.

TO BUILDERS AND OTHERS.

HART and SONS, Wholesale and Manu- facturing Ironmongers, Nos. 53, 54, and 55, Wych-street, Strand. Established 1819. Proprietors and sole Manufacturers of PITT'S PATENT SELF-ADJUSTING DOOR FURNITURE and SPINDLES, and Manufacturers of Dr. ARNOTT'S VENTILATING CHIMNEY VALVES.

HART and SONS solicit the attention of Builders, House Decorators, Smiths, Bell-hangers, &c. &c. to their extensive and well selected stock of DOOR FURNITURE in every suitable material, *en suite* with finger-plates, bell-pulls, levers, &c., and also to their

LOCKS and LATCHES in mortice, rim, drawback, iron gate, cabinet &c., of all qualities, including Barron's, Bramah's, Chubb's, and Pitt's Patent.—To their

GENERAL IRONMONGERY, wrought and cut nails, screws hinges, bolts, &c. &c.

BRASS FOUNDRY.—Bell cranks of all descriptions, cornice poles, picture rods, skew door handles, desk and hat rails, window guards, Espagniolette bolts, &c. &c.

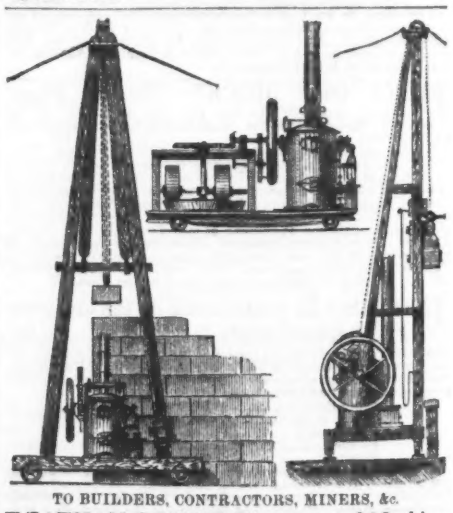
Window fittings of all kinds, including brackets, rods, arms, sliding sockets, trays, &c. &c.

DOOR SPRINGS and HINGES, including Redmund's, Smith's, Collinge's, Gerish's, and Cotterell's patents.

WINDOW BLIND FITTINGS of the most approved principle.

LEA'S RACK BOLT MORTICE LOCKS, for which they are AGENTS, as well as for all inventions of merit as soon as perfected.

HART and SONS, aware that the practice of publishing NET price-lists is injurious to the interests of the trade generally, are unwilling to follow it, but at the same time they beg to assure their friends that their prices shall be equally as low as those of any other respectable house.



TO BUILDERS, CONTRACTORS, MINERS, &c.

NATHAN GOUGH, Engineer and Machine Designer, 46, Albert-street, Manchester, has on sale his PATENT PORTABLE STEAM-ENGINE, from two to six-horse power, for grinding mortar, raising building materials, as blocks of stone, bricks in hods or barrows, driving piles, working pumps, circular saws, and marble and stone saw frames. The apparatus connected with the above are attached to the engines, as seen in diagram, figure 1, shear legs for raising and setting stone by steam; figure 2, steam mortar mill; and, figure 3, steam pile driver. The engines are also applicable for working, mortising, planing, and other machines, raising earthwork in waggons or barrows out of foundations, railway cuttings, &c.; sinking pits, working cranes, stampers, or rollers for crushing ore, drawing waggons in mines, &c. Upwards of 400 of these engines have been sold, and they have been, and are now, extensively employed upon public works in England and on the continent. Amongst many others, in the erection of the new Houses of Parliament, where three of them are now employed in raising the stone, &c., for the tower; the High Level Bridge, Newcastle-upon-Tyne—five of them with mortar mills, syphon pumps, circular saws, &c. &c.; at the new Market, Billingsgate, and at the great Suspension Bridge over the river Dnieper; at Kieff, in Russia, where six of six-horse power each, with pile-driving apparatus, mortar mills, motion for working pumps, circular saws, &c. were attached: three of them were mounted upon wheels. References may be made, amongst others, to Her Majesty's Commissioners of Woods and Works, the Government Engineers, Messrs. Burgess and Walker, and G. Rendell, Esq., Chas. Barry, Esq., Architect, Messrs. Grissell and Peto, Contractors for the New Houses of Parliament; Jno. Jay, Esq., Thos. Brassey, Esq., Wm. McKenzie, Esq., Messrs. Peto and Betts, Messrs. Baker and Son, Messrs. Locke and Nesham, Jas. Hunt, Esq., London; the Sunderland Dock Company, the Hull Dock Company, Branson and Gwyther, Birmingham; Messrs. J. and R. Crawshaw, York; Jno. Stephenson, Esq., Messrs. Loyd and Brothers, Stockport; Messrs. Pilling and Brierley, Rochdale, &c. &c.

NATHAN GOUGH further directs attention to his PATENT DOUBLE ACTING SYPHON PUMPS, of 9 and 12 in. diameter for coffer-dams, and FORCE PUMPS of 4, 5, and 7 in. diameter for supplying tanks with water for locomotive engines, gentlemen's mansions for domestic purposes, fountains, &c. &c., which are worked by his patent portable steam engine.—A lithographic sheet, illustrative of the various applications of the portable steam engine, may be inspected at the office of this paper.

N. G. visits London about six times in the year, and would wait upon parties at their places of business.